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Electrical Contracting

With Which Is Incorporated
The Electragist

CONSISTENT QUALITY

CONSISTENT QUALITY

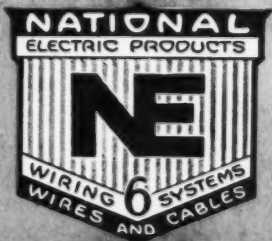
Complete WIRING SYSTEMS

and **FITTINGS**

WIRES & CABLES



FOR
Every



National Electric Products Corporation
National Metal Molding Division
Pittsburgh, Pa.

TK 1*
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*Switch life depends
upon switch contacts*

...*This new contact spring*



*which eliminates
burning at "make"*

*must not be
Overlooked*

SWITCH CONTACTS are the important parts of a toggle switch. They are the parts which should have most consideration in selecting a switch. For even though the function of the contacts is simply to make and break a circuit, the life of the switch depends upon the way this function is performed.

The most frequent cause of switch failure has been burning of contacts at the "make". No switch contact spring could receive the enormous inrush of current at the instant of "make" without burning. This trouble is particularly severe when a switch is used to control the now commonly used type "C" lamp.

Illustrated above is the new Hubbell Toggle Switch with a radically different contact spring, developed especially to overcome burning at the "make". This new contact spring is a notable achievement in toggle switch design. It positively overcomes burning at the "make"—even when in circuit with type "C" lamps. It guarantees the new Hubbell Toggle Switch freedom from the chief switch trouble—burned and pitted contacts.

Note the other worthwhile features incorporated in the new line of Hubbell Shallow Flush Toggle Switches. Clip the right hand corner of this page to your letterhead for full details.

*Electrically and Mechanically
Perfect in Design—"Approved"*

A radically new form of contact spring scientifically designed so that two different rates of vibration are set-up in the spring; one tending to counteract the other. Thus recoil is practically eliminated in the ends of the contact spring when the solid metal contact blade strikes between them. As a result, burning and pitting of the spring is prevented—even when in circuit with type "C" lamps.

An automatic "kick off" prevents sticking of blades in contact.

Commutator support is perfectly insulated.

Commutator blades are rigidly riveted to carrier, insuring positive alinement.

Spring arm is pivoted on a round shaft, seated in a symmetrical bearing, facilitating faster, smoother action without wear.

Operating mechanism is separate from the bridge and perfectly insulated.

A solid bridge with ears lies in a recess

across Bakelite cover—entirely insulated; perfect alinement and rigidity insured.

Each wiring terminal is held by two screws.

Bakelite case completely encloses mechanism.

A complete line to meet any need—

9801—Single Pole, 5 amps. 250 volts; 10 amps. 125 volts

9802—Double Pole, 10 amps. 250 volts

9803—3-way, 5 amps. 250 volts; 10 amps. 125 volts

9804—4-way, 2 amps. 250 volts; 5 amps. 125 volts

9805—Single Pole, 20 amps. 250 volts

9806—Double Pole, 20 amps. 250 volts

*Hubbell Screwless
Plates of Bakelite*

Ask for a description of these self-aligning switch and outlet plates. You can obtain them in any color or finish to exactly match any background.



HUBBELL
Toggle Switches

HARVEY HUBBELL, INCORPORATED, BRIDGEPORT, CONNECTICUT
Boston Mass., 176 Federal Street; Atlanta, Ga., H. C. Biglin, 138 Marietta Street; New York, N. Y., 122 E. 42nd Street; Chicago, Ill., 318 West Washington Street; Denver, Colo., T. H. Bodfish, 1109 Broadway; Philadelphia, Pa., Fifth Street, Phila. Bourse (Exhibition Dept.)

STATE OHIO
VINCENNA

Electrical Contracting

With Which Is Incorporated The Electricist

Victor A. Hanson, Eastern Editor

S. B. WILLIAMS
Editor

Coit A. Smith, Field Editor

Vol. 29

NOVEMBER, 1929

No. 1

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RESALE PRICE NEWS

A number of price changes have been made this month. They occur in:

Outlet boxes and covers
House brackets
Special cords
Conduit
Connectors
Extension cords
Loom
Attachment plugs
Noark and Wadsworth switches
Magnet wire

Additions to the Price Service include:

G. E. entrance fittings
Attachment plugs, new sizes
Machine screws

Powerlet entrance fittings are no longer listed as the manufacture of this line has been discontinued.

A recent analysis shows contractors of all sizes using the Price Service regularly—some doing upwards of \$1,000,000 a year and others averaging less than \$5,000 a year. This is the best indication we know that the prices are competitively right.

A recent count showed between eight and nine thousand prices quoted each month in the Resale Price Service. Each one of these prices is checked every month for possible changes.

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+ BARE AND TINNED WIRE AND CABLE • MAGNET WIRE AND COILS • RUBBER COVERED

+ ROMEX • SUPER SERVICE • TRENCHLAY • ENTERITE • AND TREE WIRES •

SPECIAL WIRES

More profits now with RomeX

For rewiring or for new jobs; in houses, garages, small apartments; in stores and offices in residential districts—there is a wide market for RomeX.

It costs less to install. Hence many jobs, hitherto too expensive for the property owner, can now be finished quickly and profit-

ably with RomeX...Lighter to handle, needs fewer fittings, easier to fish through small spaces—RomeX gives you more work and better profits, and assures your customer a safe, dependable job.

Get the whole story—from our latest RomeX booklet.

ROME WIRE COMPANY, Rome, New York
Division of General Cable Corporation

2924-R

ROME WIRE

A New Volume

FOR a publication the beginning of a new year is signalized by the opening of a new volume and so with this issue do we start on our twenty-ninth year of service to the electrical contracting industry.

For twenty-seven years this magazine was published by the contractors' national association now known as the Association of Electragists. A year ago it came under private ownership, its name was changed to ELECTRICAL CONTRACTING, its scope broadened and its method of presentation altered.

When The Electragist was sold by the Association the new owners did more than pay a price, they accepted the responsibility not only for maintaining the position of champion of the contracting business, but for doing certain things which the Association was not in a position to undertake.

ELECTRICAL CONTRACTING has closed its first year as an independent publication and is now starting on its second. How well we have kept that trust is not for us to answer. The industry has done that in greatly increased circulation and advertising.

In our first year of the pictorial treatment there was naturally much

of the cut-and-try method employed. That is behind us and we start on the second lap with the knowledge of being better equipped to do even a better job.

THE Resale Price Service which was promised a year ago is now in operation and from the response from readers appears to be satisfying a long-felt want. This service is helping contractors to conduct a more profitable business. Though it is an expensive service we do not propose to stop there. Our program provides for other things to further help the contractor.

During the past year we have enjoyed an exceptionally large correspondence with our readers. We have been called upon to give help and information on a great variety of questions. This confidence on the part of our readers is appreciated and we trust that during the coming year we may be even more helpful.

And so as this new volume, Volume 29, is started, the publishers of ELECTRICAL CONTRACTING want to thank the thousands of contractors who have swelled the ranks of subscribers and the advertisers who have had faith in the program of the magazine.



There'll be no hold-ups
or delays once you get on
the job with Durabilt
Wiring Materials.
They have been
speeding up wir-
ing jobs for years.



DURABILT
REG. U.S. PAT. OFF.
PRODUCTS *Speed up
wiring
jobs*

ANACONDA WIRE & CABLE COMPANY

General Offices, 25 Broadway, NEW YORK

Chicago Office, 111 West Washington St.

The Specialist KNOWS

THERE'S lots of things a contractor can make use of his wholesaler fer, something besides orderin' a twelfth of a dozen ½ in. locknuts or the like.

I was over at the Big Town last week and I decided that aside from seeing a squawkee an' asking the taxi driver where was a good place, I might do worse than drop into th' supply house where I get some o' my stuff.

Well, this fella had a coop up on a sort o' mezzanine balcony with a glass front, and he was yelling orders through a little window to the men on th' floor, and talking into two telephones at th' same time.

Girl at th' switchboard says to me between chews, "Who dayawanta see?" and I says, "Th' boss," an' she says, "He's busy," an' I says, "I could see that from acrosst th' street," an' she says, "What name shall I tell him?" an' I says, "John Wise," an' after about a minute the little window opens an' the boss yells down, "Hey, you, John Wise—come up here," so I went up to his coop.

Well, sir, that fellow knew more about me and my business than I did myself. He starts in right off the bat:

"I hear you're going to specialize on lighting and cut out all this cat-dog-and-skunk competition on general wiring jobs. That's fine! Lemme give you a tip. Pick out a few specialties. Learn all there is to know about 'em. Then, when you get on a job, talk about so many things that price is forgotten. Frinstance, suppose th' customer has been shopping around and has about decided to put in some thin ball-and-chain fixtures about eight feet from th' floor. You can say to him, Mister, the glare from those units placed the way you plan to will make you lose the effect of just about one-half the light you pay for. Your bill here is about \$20.00 a month: half of it will be wasted, which makes \$120.00 a



year. The units will last about five years, so you're planning to toss away \$600.00 of hard money for th' privilege of buying a hundred dollars' worth of stuff cheap."

"Yeah," I said to this here wholesaler, "but how do I know that?"

"You don't but you will—when you're a specialist. That's what a specialist is—a man who knows a lot about a few things, not a little about a lot of things. He cashes in on what he **knows**—not on what he **does**."



A CONVENTION

A DIFFERENT atmosphere pervaded the Twenty-ninth Annual Convention of the Association of Electragists held September 30 to October 3 at Swampscott, Mass., from that of previous years. It was the first convention to be held under the new by-laws and chapter plan of representation. Approximately half of the membership was officially represented—it was a convention of picked men.

The program, which was unusually strong, emphasized association work; most of the papers relating to some form of cooperative activity. The high spot came at the opening of the general session on the last day when Charles L. Edgar, president of the Boston Edison Company and one of the outstanding power company executives of the country, paid what is probably the highest tribute the electrical contracting industry has ever received, at the same time denouncing those unfair practices on the part of others against which the contractors have complained for years.

"The electrical contractor," said Mr. Edgar, "is an essential in the electrical industry that is indispensable. He is practically the foundation of our business and the backbone of our future success."

The election of officers from the floor—another new institution—was the cause of great excitement and interest and resulted in the election of Leo E. Mayer, White City Electric Company of Chicago, as president and Earl N. Peak, Marshall Electric

*Mayer chosen to head A. E. I.—
contracting industry—Ch
plan proves its*

Company, Marshalltown, Iowa, as vice-president and regional executive committee men as follows:

Eastern	Allan Coggeshall, New York, N. Y.
(one year)	
Southeastern	W. W. Ingalls, Miami, Fla.
(one year)	
Great Lakes	John H. Busby, Detroit, Mich.
(one year)	
Southern	J. A. Fowler, Memphis, Tenn.
(two years)	
Central	F. T. Langford, Minneapolis, Minn.
(two years)	
Mountain	Geo. R. Randall, Salt Lake City, Utah
(one year)	
Pacific	Clyde L. Chamblin, San Francisco, Cal.
(two years)	
Eastern Canadian ...	R. A. L. Gray, Toronto, Can.
(two years)	
Western Canadian ..	J. H. Schumacher, Winnipeg, Man.
(one year)	
Open Shop Section..	S. J. Stewart, New Orleans, La.
(one year)	
Union Shop Section.	(to be elected.)
(one year)	

Another bright spot of the convention was the entertainment program provided by the Boston com-

Electrical Contracting, November, 1929



OF PICKED MEN

*—Edgar pays high tribute to
Chapter representation
visits worth*

mittee and the smoothness with which it was executed. Commendation of the thoroughness of the work of this committee was heard on all sides. A daily paper in colonial style containing a complete calendar of events was distributed each morning by the Metropolitan Electric League of Boston.

The Executive Committee adopted a different procedure this year. Instead of meeting the day prior to the convention and at lunch and dinner every day thereafter, wound up all of their work on Sunday so that they could engage in the sports on Monday and mingle with the delegates during the convention.

On Monday night the officers of the different chapters present were guests of the Executive Committee at dinner after which they engaged in a round table discussion of chapter organization, problems and activities, the pooling of which information will undoubtedly prove of great value in further chapter organization during the coming year.

At the close of the convention the new Executive Committee met to decide on the place of the 1930

convention and to make the standing committee appointments.

Milwaukee's bid for 1930 was successful and the time will be either the third or fourth week in August.

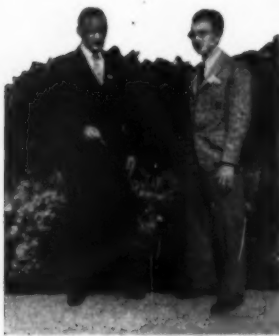
The committee appointments were as follows:

Publication and Convention, L. E. Mayer; Central Station Relations, Earl N. Peak; National Electrical Code and Wiring Methods, Allan Coggeshall; Technical Research and Engineering (New Committee), not yet assigned; Trade Policy and Liability Insurance, J. A. Fowler; Architects and Engineers, John H. Busby; Cost Data and Data Book, J. H. Schumacher; Standardization, Clyde L. Chamblin; Legislation, W. W. Ingalls; Credit and Accounting, Geo. R. Randall; National Motor Section, S. J. Stewart; Membership, Frank T. Langford; U. S. Chamber of Commerce, L. K. Comstock; International Relations, R. A. L. Gray.

Two new honorary members were elected, Earnest McCleary of Detroit and A. Penn Denton formerly of Kansas City and now of New York.

The resolution proposing the name of Mr. McCleary read:

"Earnest McCleary, who was president of our Association from 1903 to 1905 and was for many years a member of the Executive Committee, has retired from active electrical contracting business. Mr. McCleary's untiring interest in the progress and growth of our organization merits our recognition by our highest honor—his election as an Honorary Member."



Harvy Uhl and W. R. Brookins of Akron



Rochester group with Miss Brooklyn: (Left to right) Chas. T. Granning, Edw. A. Roeser, F. A. Mott, Mrs. Hugo Tollner (Brooklyn) and G. Fred Laube



Mr. and Mrs. Henry A. Roseberry, Grand Rapids, Mich.



Windy City folks:—F. T. Langford (Minneapolis and Chicago), H. W. Donaldson, J. O. Kelso, Wm. McGuineas, president Chicago Electrical Contractors Association, L. E. Mayer (new president A. E. I.), J. W. Collins, S. B. Williams, all of Chicago

B. W. Robertson and Lawrence E. Donovan of Boston



John Hooley, President, Electrical Contractors Association of New York



Youngstown Contingent: (left to right) J. B. Conklin, L. M. Robinson and Leo J. Witt

A. Lincoln Bush, Chairman of the Board, New York State Association



From Dixie Land:—(Left to right) S. J. Stewart and I. G. Marks, New Orleans; J. A. Fowler, Memphis; W. W. Ingalls, Miami and T. H. Fulton, Atlanta



James F. Burns, Schenectady, N. Y., a regular attendant at all conventions



In proposing the name of Mr. Denton for Honorary Membership the following resolution was submitted:

"A. Penn Denton's activities while chairman of the A. E. I. National Electrical Code Committee and in representing the Association on the Electrical Committee, N. F. P. A., were of utmost importance to our organization. He spent years of time and experience in the upbuilding of this Code and was a loyal member of the A. E. I. for many years."

J. A. Fowler as chairman of the Trade Policy Committee reported that a meeting had been held the week previous at Niagara Falls, Canada, with a similar committee for the National Electrical Wholesalers Association on controlled credit and that a plan was proposed, the basic elements of which are as follows:

1. A credit interchange group may be formed in local cities made up of every wholesaler who will cooperate and will include manufacturers and manufacturers' representatives, as these latter also sell and extend credit to contractors.

2. Each member of the credit interchange group will file his own house credit terms with the group bureau. Each member will promptly file each account for interchange information when it becomes past due under the terms of such member, but only after the contractor shall have had proper notice and an opportunity to answer.

3. Any member of the credit interchange group who fails to file such information will be denied further participation in the credit interchange until the group shall, by proper vote, again admit him to such credit interchange.

After the reading of the reports the following resolution was adopted:

Whereas, the executive committee of the National Electrical Wholesalers Association has evidenced a desire to find ways and means looking toward an intelligent control of credits and the elimination of the many abuses of credit, and

Whereas, the executive committee of the National Electrical Wholesalers Association has expressed a willingness to join with the Association of Electragists, International, in a mutual study of plans for the solution of credit problems,

Therefore, be it resolved, that the Association of Electragists, International, voice its appreciation for the cooperative spirit manifested by the executive committee of the National Electrical Wholesalers Association and urges upon all parties at interest an earnest and sincere effort toward an orderly and sane application of the principles of credit control.

The 1929 McGraw Award of the Contractor-Dealer Medal and purse was awarded to John Kuhle-

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L. E. MAYER
President

Born in St. Louis in September, 1884 and at the age of 14, after completing grammar school, was employed as errand boy at Montgomery Ward & Co. At the end of two years he left this organization to be apprentice installer on telephone work and then traveling installer for Stromberg-Carlson Company. Later he was employed by American Electric Company until 1906 when he left to become permanently connected with White City Electric Co. of Chicago where he now holds the title of president. While with this latter organization he held several positions including manager, secretary and treasurer. Mr. Mayer has had considerable electrical experience and is recognized as one of the leading electragists in the country. He has been very active in association work and has many fraternal affiliations. Mr. Mayer served on the executive committee of A.E.I. from 1927 to 1929, is a member of the committee on Credit Control, also of Electrical Contractors Association of Chicago, Chicago Association of Commerce, Allied Industries Committee, A.G.C., and many others. He is president of the Lombard Club, also president of the Board of Lombard M.E. Church, and Trustee of the Village Board of Lombard.



EARL N. PEAK
Vice-President

Earl N. Peak, president and general manager, Marshall Electric Company, Marshalltown, Ia., was born in Wilsey, Morris County, Kan., in 1888. In 1903 he entered the employ of the Farmers' Mutual Telephone Company. Four years later he was made foreman of city maintenance for the Central Union Telephone Company of Moline, Ill. at their Rock Island station. After severing his connections with this firm he entered the employ of the Marshall Telephone Company at Marshalltown for three years. After twelve years of general experience in the electrical construction and contracting line Mr. Peak decided it was time to strike out for himself and did this by organizing the Marshall Electric Company. This organization grew very rapidly and now Mr. Peak is recognized as one of the foremost electragists in the state of Iowa, as the company's business embraces all kinds of electrical construction. He was one of the organizers of the Iowa Association of Electragists, of which he is now president, and is also prominent in local affairs, having been president of the Associated Retailers of his city, president of the Kiwanis Club and also president of the Chamber of Commerce.

meyer, of Maywood, Ill. The following citation accompanied the award:

"..... he developed a definite formula to aid the contractor to know his costs and to protect his profits and with it a fine zeal to preach the gospel of sound economics to the men engaged in small wiring business. He voluntarily enlisted himself in the work of the local electrical leagues and at the invitation of these organizations began to work with the contracting groups of different communities, teaching the simple, common sense of cost analysis and competition. By practical schooling in meetings and through personal counsel to individuals to help them straighten out their own policies and methods, in the last several years he has brought about a most gratifying improvement in the economic health of the electrical trade of many cities—notably Youngstown, Chattanooga, Knoxville, Binghamton, Akron and Cincinnati."

H. H. Walker, Los Angeles, Calif., one of the small group that traveled an aggregate of 50,000 miles to attend the convention



The Largest Delegation—Brooklyn, N. Y.:—Front row: (Left to right) Hugo Tollner, Mrs. Hugo Tollner, Mrs. John Wilhelm, Mrs. Chas. Soper, Louis Kalischer, new chairman, Motor Specialists Section. Rear row: Jack Korn, L. C. MacNutt, Lewis Lepsky, John Wilhelm, J. A. Walker, J. S. McNulty, Chas. Soper and Ed. F. Nager

R. W. Keck, Allentown, Pa., President, Lehigh Valley Electrical Association



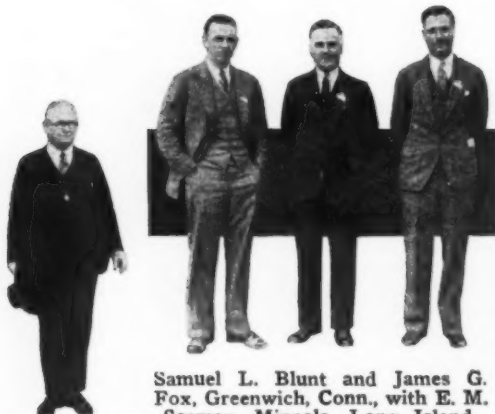
L. T. Souder of Washington, D. C.



The Philadelphia Four: J. F. Buchanan, W. V. Pangborne, H. A. Hynes and H. B. Frazer



"Hobe" Barnes of A.E.I., Left-Bower to Larry Davis



Samuel L. Blunt and James G. Fox, Greenwich, Conn., with E. M. Seaman, Mineola, Long Island, N. Y.

George H. Glass, St. Augustine, Fla.



Canadian Delegates on the Rocks: —(Left to right) A. McCaine, Winnipeg, J. H. Schumacker, Winnipeg, Mrs. J. H. Schumacker, R. A. L. Gray, Toronto and Miss Genevieve Schumacker



Herbert Garvin and W. S. Hurley from the Erie, Pa., Chapter

The judges making this award were Charles M. Beltzhoover, A. Lincoln Bush, Hugo Tollner, James F. Burns and Earl Whitehorne.

The convention went on record as endorsing the principles of the Kelly-Capper Bill now before Congress to permit the seller of trade-marked goods to control resale prices and urged all Chapters to become familiar with the provisions of the Crane Bill and to take up its support through their congressmen.

John H. Schumacher, chairman of the Cost Data Committee and A. L. Abbott, former technical director of the Association and originator of the Electragist System of Estimating were presented with specially printed copies of the new Electragist Estimating Manual.

A large percentage of the attendance were motor specialists who came from every part of the country. Of this group a committee again met with committee of motor manufacturers. The committee reported that it had submitted for consideration the following principles which received the sympathetic recognition of the manufacturers:

1. Definition—A motor specialist is an individual, firm or corporation regularly in the business of selling motors, repairing and installing same; and properly equipped and qualified to service and install motor apparatus and accessories connected therewith.

2. A motor specialist should operate under a single franchise. However, he may obtain a franchise from another manufacturer to cover apparatus not obtainable under the original franchise.

3. Motor specialists holding a franchise should make every effort to sell the product of the manufacturer with whom they hold the franchise.



The New Executive Committee

Left to right: John H. Busby; Geo. R. Randall; L. K. Comstock; F. T. Langford; E. N. Peak, vice-president; L. W. Davis, general manager; L. E. Mayer, president; W. W. Ingalls; J. H. Schumacher; R. A. L. Gray; C. L. Chamblin; J. A. Fowler; S. J. Stewart (Allan Coggeshall missing).



Ernest McCleary



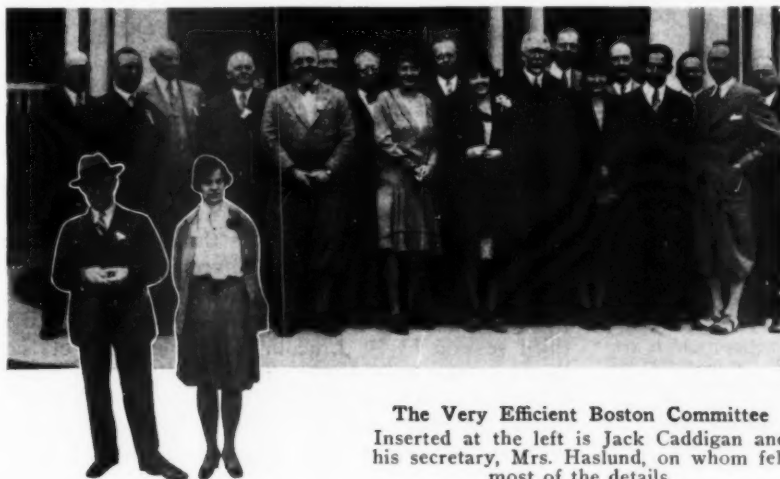
A. Penn Denton

New Honorary Members

4. The cost to motor specialists of proper distribution and servicing requires an increased margin on fractional horse-power motors.

5. Manufacturers' service shops should be conducted not as general repair shops but as service shops limited to the repair of their own equipment. (Moreover, in harmony with the principles, we have received encouraging reports from the representatives of the various sections of the country indicating definite improvements in the motor situation.)

The motor committee recommended the setting up locally of motor specialist chapters of the A. E. I., and "that, in the event of any local motor specialist section being unable to obtain satisfactory local co-operation with respect to any specific matter, the local section forward the details of the specific complaint with complete data and evidence to the general manager of the A. E. I. so that such specific matters may be considered on a national basis."



The Very Efficient Boston Committee
Inserted at the left is Jack Caddigan and his secretary, Mrs. Haslund, on whom fell most of the details.

The convention sessions opened on Tuesday morning, October 1, with the President's Address after a message of welcome from Leavitt L. Edgar, general chairman of the convention committee.

President Chamblin in his message, which will be found on page 13 of this issue, laid particular stress upon the relationship of the individual's actions to association's success. He pointed out that association activities built upon selfishness never last.

The second speaker was Dr. Hugh P. Baker, manager, trade association department, United States Chamber of Commerce, who took as his subject "Charting the Course for Trade Associations". Dr. Baker left with the convention a clear picture of the way in which the government looks upon trade associations, giving particular reference to legal and illegal courses of action. He concluded his address with a discussion of the Trade Practice Conference.

The possibilities for the electrical contractor in the sale of motors were developed by R. A. Balzari, marketing counsellor, McGraw-Hill Publishing Co., in a paper entitled "The Industrial Field for Motors". Mr. Balzari used a series of statistical charts to drive home his points. The speaker showed quite conclusively that except for the very large industrials, which constituted less than 20 per cent of all factories by number, the electrical contractor was not only the logical, but the most economical means for distributing motors. Mr. Balzari urged the contractors to awaken to this opportunity and take advantage of it before someone else enters the field.

The Architects and Engineers Committee, of which L. E. Mayer was chairman, presented the uniform clauses for proposals to be used on big work. These were accepted by the convention and will be found elsewhere in this issue.

The second session held Wednesday morning was opened by John W. Hooley, president of the Elec-



The Gatineau Power Troubadours from Hull, Canada, who Thrilled the Convention with Their Singing:
Left to right: E. Bedard; E. Massé; A. Durocher; G. Ardouin; T. Lanctot.

trical Contractor's Association of New York, whose subject was "Stabilizing the Electrical Contracting Business". Mr. Hooley explained the situation leading to the withdrawal of the New York contractors from the Building Trades Employers Association in the early spring and the manner in which they were now operating. He urged the formation of similar strong local associations throughout the country with key-men for contact with the national organization.

Mr. Hooley was followed by Allan Coggeshall, president, Hatzell & Buehler, Inc., of New York, whose subject was "Engineering Considerations in Electrical Contracting". The speaker urged that the association give consideration to the advisability of setting up an engineering research department. It was pointed out that little is known of the uses to which the wiring in a building is put after a building is completed and that studies of this nature and other engineering phases of wiring would be of tremendous value to the membership.

The Electrical Approval Bureau of St. Louis was very thoroughly explained by its president, W. C. Burton. This bureau has been set up for the purpose of insuring the public that wiring will be done according to plan and specification. Details of the bureau's operations will be found on page 15 of this issue.

"Sound Business Practice Through Credit Control" was the subject of a very forceful address by J. E. Vaughan, Jr., of the National Association of Credit Men of Chicago. Mr. Vaughan pointed out the economic waste involved in uncontrolled credits and urged upon the contractors that they encourage the setting up locally of sound credit control plans.

The outline of suggested possibilities for a state licensing act was presented at the opening of the third session by A. Lincoln Bush, chairman of the board of the New York State Association of Electrical Contractors and Dealers. The outline was approved so that members desiring help in securing such an act might have some recommended form available.

(Continued on page 92)

UPHOLD THE CODE

WHEREAS The Association of Electragists, International has always supported the National Electrical Code, cooperating with other branches of our Industry, both in its preparation and its enforcement, and recognizing it as the American standard for wiring installations, and

WHEREAS This Association recognizes the growing tendency on the part of certain interests and some inspection authorities to violate the rules of the National Electrical Code, in sponsoring and permitting

- (1) The installation of bare grounded neutral wiring systems in conduit—
- (2) The use of the conduit raceway of a rigid conduit system of wiring for the neutral or ground return conductor of a three wire alternating current system, and
- (3) The grounding of fixtures to the neutral conductor of a non-metallic sheathed cable system—

THEREFORE BE IT RESOLVED That the Association of Electragists condemns all practices which are violations of the Code, and requests the cooperation of all Industry groups in investigating these practices and in taking steps to see that the National Electrical Code is everywhere accepted and its provisions followed.

Adopted A.E.I. Convention Oct. 3

THE MEASURING STICK *for a Successful* **A. E. I.**

¶ *Selfish and narrow thinking will never attract or hold men of broad vision and constructive ideas.*

¶ *An association can rise no higher than the thinking and actions of its members and any attempt to build highboard fences or combines and agreements that will not bear the light of day will only be a flash on the business horizon.*

¶ *It is not the building of a great and powerful political machine that will assure the continuation of this organization through the years to come, but it is the degree with which members play the game square in their own particular section of the country.*

By CLYDE L. CHAMBLIN

President, A. E. I.



THIS is the twenty-ninth annual convention of our Association. A business that has operated continuously for twenty-nine years is considered an old business, and as a rule indicates efficient and proper management, and I see no reason why the gauge of business success cannot be applied to an association's operations.

If we could know the number of contractors and dealers who have come up and then passed out of the picture in the twenty-nine years of our history, doubtless the number would be appalling, and we might pause here and wonder how many of those firms now operating will be in existence twenty-nine years hence.

While we are in a pensive mood, as executives of businesses large or small, I wonder if we were asked to get up here and state our ideal or objective in the conduct of our businesses what sort of answers we would get. I sat in a meeting of a group of leading contractors in one of our large cities, discussing the possibilities of bettering competitive conditions. One of this group refused to accept a constructive pro-

gram because he stated he *had* to have a million dollars gross business per year, and the proposed plan might handicap him.

What was his objective? Volume under any conditions. If this is your objective, do you believe you are insuring the successful continuation of your business during the years ahead of you?

Some might answer wealth. There is no more miserable person in the world than he whose sole object in life is wealth. They rarely look at any proposition except through the eyes of "what is there in it for me?" How often we see men who by hook or crook have accumulated a competency which classes them as wealthy, and just as they cross the threshold the strain of years sends them to a sanatorium, or they find they do not know how to play or gain the friendship of those whom they have known for years.

I believe the mentally normal man has as his main objective the desire to accumulate such a competency as will insure his proper care in his declining and unproductive years, but he wants to get the best out of life as he works to that end. He knows full well

President's address delivered at Annual Convention Association of Electragists, International, Sept. 30—Oct. 1, 1929, Swampscott, Mass.
Electrical Contracting, November, 1929

that no policy of his that is economically unsound will long stand, and that in the final accounting the public at large pronounces the sentence.

Perhaps you are beginning to wonder why this moralizing. Because an association's thinking and ideals is the reflection of the thinking and ideals of the members composing it. If our membership thinking is selfish and narrow, our association's actions and objectives will be selfish and narrow, and such policies will never attract or hold men of broad vision and constructive ideas.

OUR local association is for localized thinking, but the International Association is the place for the broadest and most carefully considered policies. The eyes of the business world are watching the actions of all bodies affecting business in a large way. Our association is but the merger of our local associations scattered throughout the country, therefore, it behooves us to see that our aims and objects merit the confidence of all.

During my term of office, now drawing to a close, I have coveted for our association this kind of a reputation. I fully believe we enjoy the confidence and esteem of the other national bodies, for our officers are continuously called into consultation on the problems of our industry.

What is the province of an International Association? It is not my purpose to go into all of the angles this question might open up, but it is my candid opinion that it is fundamental that the recognized International body of a trade or group must of necessity be the representative and mouthpiece of that whole group. Regardless of the subdivisions or sections of our association, the A.E.I. must always be the spokesman and executive body of the Contractor-Dealer branch of the industry throughout the length and breadth of the land.

And by contractor-dealer do not get the impression that this means exclusively one who wires buildings or who sells appliances. The A.E.I. is the association of those engaged in the distributing and installing of electrical equipment to the ultimate consumer. If, for instance, you are only in the motor business, where else in the electrical picture do you fit in except with other dealers in electrical equipment as represented by this association?

THIS is the retail branch of the business, and whether we retail the conduit, wire, and labor in a building, or sell electrical supplies of any nature to the public, this is your trade association.

It naturally follows, therefore, that the size of the firm, or the particular branch of retailing which they do, should never be a bar to their membership in our association; nor should financial, or other restrictions be put upon them that would prevent them from becoming members.

In other words, it is not the size of the bank roll, or the volume of the business, that should determine the right to membership; but rather are they the type that would add strength to our thinking and actions, and do they conduct their business along sound constructive lines.

Under American business principles we do not recognize caste, but are quick to recognize genius, and ability, and we want this class in our association. And on the other hand as an association we are faced with the responsibility of having something to offer that will attract, and hold this class of men; and believe me, this is no small order.

Fortunately through the sale of our magazine, we are better financed to carry on a more constructive program, than we have been in years. This last year has shown the result of this, by enabling our general manager to cover the entire country and to carry a constructive and inspiring message to all sections.

And this is the real problem of a nation-wide organization; how to reach the minds and consciousness of its constituents scattered thousands of miles apart, with the story of what their organization is doing for them, and how important they are to it.

BEING more familiar with the contractor-dealer business, than with any other, I can speak with authority when I say that the electrical contractor-dealer as a class, from the largest operators to the smallest, need more petting and coddling, than any group of ten-year-old school boys.

A representative from our office can go into a community, get the contractors together, get them organized and going fine, and as soon as teacher's back is turned, one boy steals the other boy's marbles and the battle is on.

And this brain-rash is just as liable to break out among our largest contractors, in our largest cities, as among our smallest contractors in our smallest communities.

If the psychologists ever want to make a study of the development of a brain, to prove that men are only boys grown up, the contractor-dealer offers a fertile field. We take such delight in panning every other branch of the industry for our troubles that we overlook our real troubles, our own mental attitude toward our own immediate competitor.

Let your mind carry you to your own city or town and count the number of your competitors whom you feel you can absolutely trust to play square with you. Of the total number either in or out of your local association, I will venture the assertion that the percentage with whom you would be willing to put your cards on the table, is appallingly small, and this is the timber with which we are attempting to build local, state and national organizations that are supposed to be broad and constructive in their ideals, and whose prime purpose is to help its members become successful firms and individuals.

Electrifiers, how can such a miracle be performed? If the men of our fraternity were playing square with themselves and each other, we would not see the continued collapse of unsound, uneconomic, sometimes illegal attempts at building associations to force-feed members. Again I say—an association cannot rise higher than the thinking and actions of its members, and any attempt to build high board fences, or combines and agreements that will not bear the light of day, will only be a flash on the business horizon.

St. Louis Plan of Certified Wiring^{*}

Explanation of Electrical Approval Bureau set up to insure owners that wiring would be done according to plans and specifications and in workmanlike manner.

By W. C. BURTON

*President Electrical Approval Bureau, Inc.
St. Louis, Mo.*



THE purpose of The Electrical Approval Bureau, Inc., of St. Louis, is first to help the engineer, architect, owner, or whoever plans the job, to make a complete, fully detailed, adequate wiring plan and specifications.

We do not mean to take the place of the consulting engineer, for we realize their importance in the industry. We feel that our plan will benefit them for we advocate that the plans and specifications should be adequately detailed and recommend that the owners secure engineering advice.

The plan and specification is then certified by the bureau as being what the architect has planned for the job. Through the cooperation of the labor organization we are able to assure the architect and owner that all work described on a plan certified by the bureau will be installed as shown.

This plan will benefit the owner, the jobber, the manufacturer, the utility company, and is equally important to the electrician; since the opportunity for his employment is dependent upon the adequacy of the installation and the completion of the job in accordance with the plans and specifications on which the work was secured.

The responsible contractor endorses any plan that provides for an adequate layout before figures are taken and welcomes competition on such a layout. It is my opinion that a more adequate job can be sold to the owner before bids are secured.

When it was determined that an Approval Bureau should be formed, it was realized that the public must be considered; its interests protected and the activities of the bureau so formed and so regulated that they could be given the greatest publicity. We retained a prominent attorney to assist us with our organization and to advise us in the formation of our plans to prevent legal entanglements. It was our desire to proceed very cautiously for we felt that permanency and success would be more quickly achieved by a slow, careful, legitimate program.

It was our endeavor to create a bureau that would render a service to the owner and properly protect his interest. We believe that by providing a bureau that will interpret to the public what should be incorporated in an adequate layout, a real service will be rendered. We also believe that by providing for all plans to be certified, and then through the cooperation of the labor organization to see that the work will actually be installed in accordance with (Continued on page 100)

^{*}Abstract of paper presented at 29th Annual Convention, Association of Electricians, International, Swampscott, Mass., Sept. 30—Oct. 3.

The PLACE of the Electrical Contractor in the Electrical Industry



"The electrical contractor is an essential in the electrical industry that is indispensable. He is practically the foundation of our business and the backbone of our future success"

By CHARLES L. EDGAR

President, The Edison Electric Illuminating Company of Boston

THE subject upon which I am about to speak is "The Electrical Contractor and His Place in the Electrical Industry." To definitely establish his place it is necessary for us to decide first what he is and then who he is. First, therefore, let us discuss "What is an Electrical Contractor?" To my mind this question can be answered quite readily and with considerable definiteness.

The electrical contractor is an individual who chooses to adopt the installation branch of the electrical industry in order to obtain the necessities of life necessary to the sustenance of life. Quite generally he is a man who has served his apprenticeship through the various steps, first as a helper, and then a journeyman, to finally obtain a master's license and become a full fledged contractor for himself.

This, it seems to me, is a very brief but fairly accurate definition of the average contractor, being true in the great majority of cases. Personally, I have the greatest admiration for the men in this branch of the industry who have by their own initiative and hard work come up through these various steps and have acquired a business of their own entirely as the result of their own efforts.

"Who is the Electrical Contractor?" is a question

*Presented at 29th Annual Convention, Association of Electragists, International, Sept. 30—Oct. 3, 1929.

that cannot be answered quite so readily. It is a question that has been the subject of discussion for many years and has never yet been answered definitely. The "why" of this is because he has never been thoroughly understood by the other three major branches of our industry.

When I say "never understood," I speak from experience. Although our company has always been in sympathy with the contractor, it was not until comparatively recent years that we realized just what the contractor meant in our business. We were possibly too busily engaged in our own affairs to even think of his branch of the industry, and it was not until we made a study of the essentials of the electrical industry that we discovered the contractor, and when we did find him we found it impossible to lose him because he was before us everywhere we went.

We found him in the home, the industrial plant, in the office, behind the generators in our power plants. He was on the poles along the highway. No matter where we went, no matter where we sent our forces, he was there ahead of us, blazing the trail of things electrical, not only for the central station but for the manufacturer and jobber as well.

I have come to look upon the electrical contractor as the ambassador of the electrical industry—the

Electrical Contracting, November, 1929

Electrical Contractor

Electrical Industry*

representative of our business who goes forth establishing electrical relations where none existed.

There are, of course, two kinds of contractors. The first builds an electrical impression of a caliber that lives for years, and the other builds an impression through his installation that becomes inadequate from the moment it is called upon to render additional service. Let us think, then, only of the former type, because the latter is only of temporary duration and generally soon eliminates himself from the electrical contracting business.

POSSIBLY you have never heard the contractor referred to in this way before, but nevertheless I believe that if you men will but stop for a moment and think, you will agree with me that what I say is true. Is it not true that the first man on the job from the electrical industry is the contractor? Is it not he who first wires the factory, the home, the office, and all other possibilities for the sale of electrical energy and merchandise? Is it not he who makes the repairs, additions, and keeps in order the roadway of electricity through which all other branches of the industry must profit? And is it not true that without him and his work the rest of the industry would be powerless to serve and thereby become of practically no value?

"Who is the Electrical Contractor?" may be answered in general terms that he is an essential in the electrical industry that is indispensable. He is practically the foundation of our business and the backbone of our future success.

Like all other men in industry, he is often criticized. It is suggested that he is not a good merchandiser, and that he needs to be educated. I have often thought that this so-called education for the contractors—and incidentally it might be asked why all the uneducated men in the industry seem to have gotten into one branch of it—this so-called education may be merely a cloak to disguise cooperation. When I say "cooperation" I do not mean a lot of fatherly advice on how to conduct your business, nor do I mean the calling of a meeting and the appointment of committees simply to sponsor social activities, but I do mean that real cooperation that is supported by a feeling of sincere good-will, backed up by dollars and cents to be spent in the promotion of more business in a sane

Electrical Contracting, November, 1929

A DECLARATION OF MERCHANDISING POLICIES

We believe:

That the public must and will be served, and that the best public service can come only from a united industry composed of the Dealers, Jobbers, Manufacturers, and Utility.

That an organized effort by the entire electrical industry is essential, if the maximum amount of business is to accrue to each group, and a fair share of the buying power of the public is to be obtained.

That it is the Utility's duty, in addition to supplying quality service at a fair price, to assume the leadership in the sale of quality appliances at established retail prices, and to adhere to ethical, constructive merchandising methods on a basis that will encourage the activity of all legitimate retailers.

That it is our duty to instruct the public in the proper use of appliances, to do the pioneering work in opening up markets for new appliances, and to co-operate with the dealers by executing and financing constructive, educational selling and advertising campaigns.

That the Manufacturers and Jobbers can render their best service by supplying merchandise of unquestionable quality at a price which will permit the dealer a legitimate profit.

That Merchants and Dealers can and should retail appliances at prices fair to themselves and the public by those methods which have been found to be sound by successful retailers.

The Edison Electric Illuminating Company of Boston will continue:

To encourage the appliance retailers in its territory in every possible way to sell appliances ethically at established retail prices.

To hold to the above policies which it believes to be right, but to be ready to discuss at all times any problems which may arise, and to view them with an open mind so that they may be solved in a way of mutual benefit.

THE EDISON ELECTRIC ILLUMINATING COMPANY OF BOSTON

39 Boylston Street ☉ HANcock 3300

and business-like way, keeping in mind that cooperation which produces profit to the contractor produces business for the rest of the industry.

I also believe in that kind of cooperation that renders such service to the contractor as enables him to more easily carry on his business from day to day. You may ask, "How can this be accomplished?" The answer is that it can be accomplished in only one way, and that is through a thorough understanding of his problems and the removal of those obstacles which retard his progress.

It is a well known fact that the average contractor can only enter into a limited program of promotional activity, and in many instances not at all. This is because the amount of business done by the average individual and the reasonable profits therefrom do not allow a sufficient margin to enable him

to successfully carry on a program of advertising that will bring results, and what he does spend in this direction usually becomes a total loss. In spite of all this the electrical industry must go on. Therefore, the pioneering work and building up of business must be assumed by those in the industry better equipped to do the job.

It was with this thought in mind that the Boston Edison Company launched its Community Electrical Exhibits, Rely Upon Your Electrician Advertising Campaign, Letter Promotion Service, and Window Dressing Service, as well as many other cooperative activities designed solely to build business and render assistance to the contractor while increasing business for itself.

YOU, of course, know that we do not render this cooperative service with any feeling that we are patronizing the contractor. We do render it with the full knowledge that the contractor is a part of the business that we engage in, and also with a keen appreciation of the fact that we, as a power and light company, share in the results of his accomplishments. There is very little that the contractor can do that does not eventually mean business for the power and light company, and the better he does that job the better the opportunity for us to sell to his customer the service which we are supplying. *More outlets for him mean more inlets for us*, and more extensive use of the various load building electrical devices.

Another comment that is often made is that the contractor ought to do a better selling job. They say that he does not do a good job. If this is true, there must be a reason for it, and if so, what is it? To me, the electrical contractor is just an ordinary man. He is no different from any other man as far as selling ability is concerned. He can talk the same as anyone else. His merchandise is the same as is carried by his competitor. It is manufactured by the same manufacturers, so it is surely not the quality. These various phases having been eliminated, if the contractor is doing a poor selling job, I wonder if the fault does not lie in the word "competition."

Competition, they tell us, is the life of trade, but there are different kinds of competition. Good, clean competitive selling has never retarded any business, but the well known cut price, two-for-one policy has never been and never will be a boom to business. The Axminster carpet with the vacuum cleaner and the barrel of flour with the electric range is, in my opinion, the wrong precedent to establish. A continuation of such a practice and the next thing we will hear of will be the public asking for a boulevard with every street lighting installation.

It seems unfortunate that some of the branches of our business cannot appreciate the fact that cooperation with the contractor is really a paying proposition. I personally believe that he and his activities constitute one of the finest mediums we have for the building of good-will for our company. It was not so long ago that many of the contractors in our territory made it a point to tell their custom-

ers upon arrival at the job everything that they could think of that was detrimental to the company. Undoubtedly some of their criticisms were justified, but we found upon investigation that most of this condition was due to lack of understanding. I venture to say that today such an occurrence is a rare thing throughout our entire territory, because we have come to know the electrical contractor and the electrical contractor has come to know us. We understand each other fairly well. We believe that the friendship of the contractor is an asset of immense value, and we prize it highly. We also know that this friendship cannot be bought by favor. We realize it must be earned by action and not by words, and we are trying in a dignified and business-like way to accomplish this result.

The Boston Edison Company has confidence in the contractor and respects him as it does the men in all other branches of the business. We believe in the first place that he is entitled to this respect. We believe that he is entitled to make a reasonable profit on his labor and merchandise. We also believe that he is entitled to the support of the other branches of the industry in the marketing of his goods in a retail market. In order to show the contractor-dealer our attitude in this respect we have prepared and have recently issued what is now known as our "Merchandising Policy." (A copy of this is reproduced on the preceding page.)

In conclusion, let me say that to me it seems our business is isolated, so to speak, from all other types of industry. From the generating of electric service to the turning of the switch we are engaged in a more or less technical undertaking. In the manufacture of electrical products, in the sale of the products, in the installation of wiring to accomplish the use of the products, all of this work is specialized.

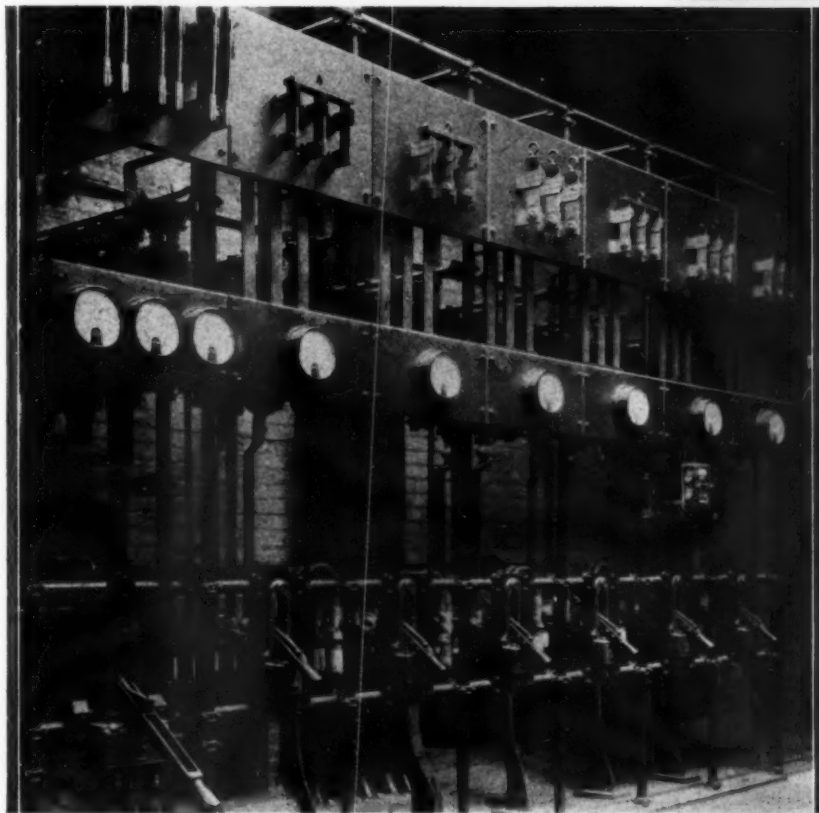
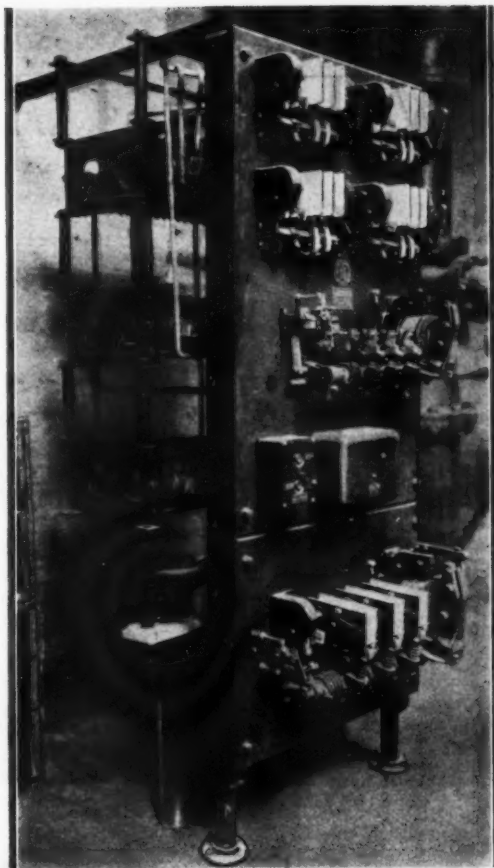
I THINK of our industry as a great organization made up of the four major branches. We, of course, do not function under the same board of directors. Our dividend policies are not, of course, necessarily alike, but to my mind no other industry is so dependent on each division as the electrical industry, if all the interests are to be successful. If any branch through misunderstanding or otherwise creates radical business practice, causing a lack of harmony or dissension, such a procedure naturally throws the entire industry out of step and works havoc with the results desired. We become a house fighting against itself and generally some member of the family gets hurt.

If without cheering and the blowing of trumpets we work as a unit for the benefit of each other, using sensible business practices and sincere dealing with the public and ourselves, nothing short of success can come to us.

Gentlemen, the question, "Who is the Electrical Contractor?" is answered by the Boston Edison Company by the statement that "It is a branch of our business," and I might add that in the opinion of the speaker it is a very important branch of our business.

Switchboard and Panel of Economical Design

Power installations embodying economy, accessibility and provision for future additions and changes are always interesting. The one illustrated here was designed and installed by the Industrial Electric Co., Chicago, in the plant of the Kellogg Box Board Co., of that city



A most important feature in a paper mill is the water supply. In this case it is pumped from a deep well, operated by a 200 HP vertical motor. This motor is controlled by an automatic control panel of simple construction, as here illustrated, the panel being actuated by a pressure switch.

All load lines feed into trough under board and into distributing conduits under the floor, eliminating conduit behind board, giving maximum spacing and making all parts of board readily accessible. Each large motor or bank of motors fed from separate panel through oil switch, each panel having an ammeter, while line panel is equipped with voltmeter, ammeter and power factor meter. The distributing busses are arranged to facilitate additional panels.

VENTILATION:



1. HOME—*Takes away cooking and smoking odors without draft.*

2. GARAGE—*Permits work with engine running without suffocating.*

3. OFFICE—*Reduces sleepiness due to stale air.*



An indoor speciality for the Winter

- 4. STORE—*Makes clerks and customers more alert and draws trade.*
- 5. FACTORY—*Improves efficiency, reduces accidents and waste by minimizing fatigue due to bad air.*



Electrical Contracting

With Which Is Incorporated The Electragist

S. B. WILLIAMS

Editor

A Real National Convention

THOUGH not large in registration the Electragist Convention at Swampscott last month was one of the best attended that the Association has ever held. Members do not make a convention. It is interest that counts—interest enough to take the constructive parts of the program back home and translate the national ideas into local action. And that is what is going to make the 1929 Convention one of the outstanding worth-while meetings.

This was the first convention under the new by-laws whereby a chapter could send an official delegate to represent it in every way. The men who were sent were men interested in association work. They showed in their actions that going to a convention was not just a joy ride, but a very serious thing.

These men are going to make the twenty-ninth annual convention something real, something of significance to the association membership. They represented almost half of the entire enrollment and on their return home their local members have been told their impressions of the meeting interpolated with suggestions for local activities.

Thus the Electragists' conventions become truly national.

A National Credit Control Plan

PROGRESS was made by the joint committee of jobbers and electragists at the Niagara Falls meeting the end of September, in forwarding a national plan of credit control. The details of the plan are to be left to a suitable credit agency which is yet to be selected.

It is doubtful if the plan when announced will go as far as the contractors would have desired but we must remember that for the

jobbers in their national association to have gone as far as they have is of great importance. Nor is there any reason to believe that experience with the plan as it may be set up will not bring further concessions to the contractors.

Without such a plan it is doubtful if the syndicate jobbers would have been a party to credit control in any city, yet in most cities their participation is essential to a plan's success.

With a plan bearing the approval of the jobbers' national association there can be little reason for any jobber not cooperating. Moreover, the existence of such a plan will make it easier for the contractors to secure its operation in any locality reasonably quick.

Motor Specialists Making Progress

THE Motor Specialist Section of the A. E. I. is slowly but surely gathering momentum. By their sincerity and evident desire to play fair these men are winning the confidence of the motor manufacturers and are making healthy progress in breaking down some of the old business barriers.

This progress can be heightened by an evidence of interest on the part of an increasing number of members and of local chapters. The manufacturers have reached the point where they know that it is not economical to compete with each other in direct sales to 80 per cent or more of the industrials. They want to be relieved of such direct sales; but they want to be sure before turning this business over to any other group that that group will function properly.

The electrical contractor who is specializing in industrial work is best set up to handle the sale of motors to industrials. He can operate at a lower sales cost than the manufacturer, he can offer quicker service, he does the wiring and so the responsibility for good

operation would not be split; when he makes a profit on a sale his interest in that product is keener; finally, because he is a specialist the chances are that he knows more about what the customer should have than does the average motor salesman.

The Motor Specialist Section of the Association of Electragists is now set up to help this branch of electrical contracting to regain the motor business—provided the interest is shown.

Employers' Associations

IN the September issue we urged a close alliance of sub-contractors through a building trades employers' association. A number of our readers have taken exception to this idea on the ground that the general contractors have been able to secure control of the employers' association to the extent that the sub-contractors had no free voice.

We can readily see how general contractors and architects would be able to control such an association by letting it be known that recalcitrant sub-contractors would not be requested to bid on their work. Such a situation should never be tolerated. In those cities where it does exist the sub-contractors have no alternative but to resign and we applaud the courage of those electrical contractors who have done so under such intolerable conditions.

The kind of an employers' association that we urged was one made up of employers of building mechanics. If a general contractor, as so often happens, is merely a contract broker then we fail to see wherein he qualifies as a member of an employers' association.

It has been suggested that no such association is necessary—that all of the mutual problems could be handled as well, if not better, by a joint committee or council, representing the several sub-contractor associations. Certainly such a set-up would permit of no undue influence being wielded by the general contractors or architects and would tend to tie those sitting on the council more closely to their own constituents. At the same time the autonomy of the individual sub-contractor associations would be preserved.

Our only thought is that a council or association, if properly set up, is essential in communities where the building trades are strongly unionized.

The First Fifty Years

IT has been said that the first fifty years are always the hardest.

On October 21, the electrical industry celebrated its first half a century as an industry. These fifty years were an era of pioneering. Hard? Yes, but—not too hard. Year after year the industry grew and waxed prosperous. Electricity had caught the public imagination and so it was not particularly difficult to sell electric service.

And now we enter on the second fifty years. But contrary to the old saying we have an idea that they, and not the first fifty, will be the hardest—though no less interesting and undoubtedly much more profitable.

Our first job was extensive, namely that of putting electricity into every home, factory, office and store. It has virtually been completed. Now comes the second job, the intensive development of the market—making two or three units of demand grow where only one grew before.

The shock troops of this movement are the electrical contractors. The extent to which this intensive development is successful depends in a large manner upon the adequacy of their wiring layouts.

We have passed the day when the slogan was "Wire them on any basis, so long as they get service." The market for new service is now almost wholly confined to new building operations. Therefore, more than ever, it behooves the contractors to make every job provide as much electrical work as possible.

Formerly, anything that wasn't dangerous was all right, all we sold was safety. Now, if we are going to get anywhere, we must sell the full enjoyment of use.

Install larger feeders and branch circuits; larger services. Remember that every day a new use for electricity is born. Inadequate copper or service might easily delay the installation of a new use years, because of the expense to provide the added capacity later—such as with the range. Remember that what we thought was a lot of light before the war is today only a dim glow. Provide for the higher intensities ten years from now. Provide for changes with a flexible wiring system—in other words, be generous with outlets and don't forget center ceiling outlets.

This is the beginning of the next fifty years—the contractor's golden opportunity!

Code Chats

A Monthly Discussion of Wiring Practice and Questions of Interpretation, Presented with a View Toward Encouraging a Better Understanding of the National Electrical Code - - -

Conducted by F. N. M. SQUIRES

Assistant Chief Inspector, N. Y. Board of Fire Underwriters

Very Hot Locations

Rule 503 (1) permits the use of slow burning insulation to be used in permanently dry and excessively hot locations by permission of the authority enforcing the Code. When moisture is present, slow burning insulation will immediately fail. We find this to be the case on the face of bake ovens, and even though the heat is excessive only rubber covered wire will last for a period of a few years. The steam used by bakers escapes and causes the slow burning wire to fail in one or two days.

George Welman.

* * *

Circuit Load Restrictions

Is it permissible under the present Code to have a load of more than 660 watts on a circuit?

Yes. The old 660 watt rule appeared last in the 1920 Code. It was not repeated in the 1923 Code but in its place were the present rules which limited the number of outlets but did not put a limit on the load which might be placed on the circuit.

Rule 807-f specifies that a (final) branch circuit shall be protected by fuses not larger than 15 amps. which allows a load of greater than that amount to be connected to the circuit providing the demand at any one time would not exceed it. For instance, we might have a total connected load of some 20 or 25 amps. distributed on the 12 outlets permitted and as long as the load in use at one time (the demand) did not exceed 15 amps. the Code would be satisfied.

Of course, in the above, reference is made to 125 volt or less branch circuits on which medium base sockets or receptacles are used. With circuits of higher voltages or with mogul sockets or receptacles different values for the sizes of the fuses are given.

There is one exception to the restriction of 12 outlets to a circuit and that is where the area supplied does not exceed 1,200 sq. ft. Here a limitation is placed on the connected load which must not exceed 15 amps. for a lighting circuit or 10 amps. for combination lighting and appliance circuit.

Again, when we come to motor and electrically heated appliance branch circuits, we have definite load restrictions.



MOTOR SPECIALIST IN NEW BUILDING A BLOCK LONG:—The A. H. Nimmo Electrical Co., Detroit, Mich., moved in September, from 856 Michigan Avenue to a very large building at 926 Porter Street, which is really a block long. This set-up means much better facilities for the company's motor department, one of the largest in the state. Mr. Nimmo is shown at his desk in the new offices.

Service Wires for Single Motors

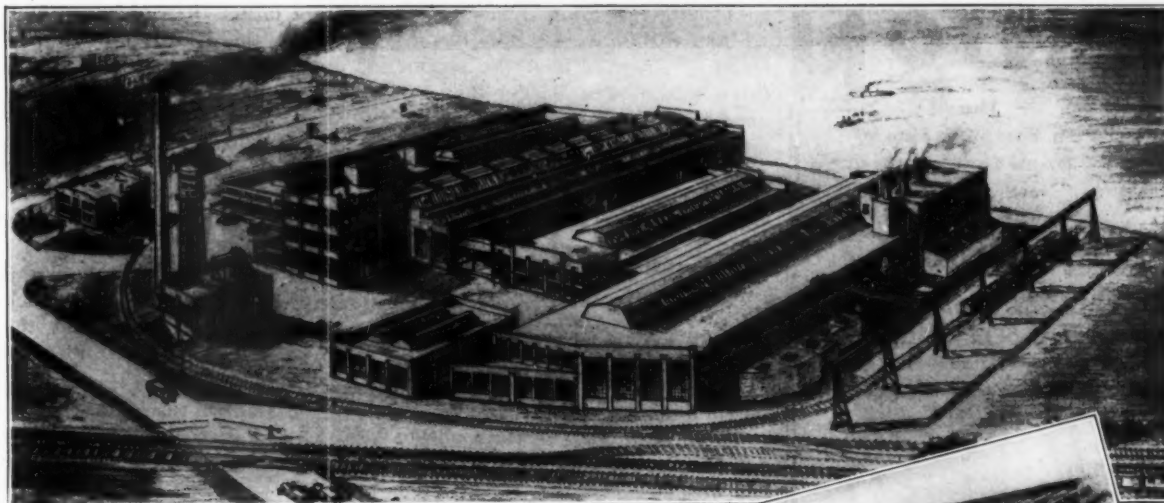
We have been asked to answer the following question: "Is it correct to use the same size wire for service run as is used for wiring to motor work, as per tables of Section 808 of the 1928 Code?"

The "Motor Tables" should only be applied to "any individual motor circuit from the main or feeder to the motor" as specified in 808a. In an installation of only one motor the service wires and the wires between the service cutout and main line cutout constitute the "main or feeder" and the natural question is: "Why need these be larger than the motor run inasmuch as there is but one motor involved and no more current will flow over the service than flows over the motor circuit?" This is true but 808a specifically states that the values given in the tables apply only to the circuit of an individual motor and there is no authorization in the Code for extending the tables to apply to other parts of the installation.

For the size of wires and cutouts for the rest of the system we must be governed by 805c (1) which refers us to Table 1 of Section 612.

Taking, for instance, a 10 H.P., 3-phase, 220-volt, reduced voltage starting squirrel cage motor, we find that the motor circuit from the main to the motor may be No. 8, fused at the starter with 35 amp. fuses and at the main with 70 amp. fuses. Therefore, our service fuses must be at least 70 amps. and our service and main must be of a size which will, according to Table 1 of Article 612, be protect-

Electrical Contracting, November, 1929



The new plant of the RUNDLE MFG. CO.,
Camden, N. J.

Manufacturers of Plumbers' Enameled Ware
Architects and Engineers—

A. A. Wickland and Co., Inc., Chicago, Ill.

Electrical Contractor—Beatty & Walton
Merchantville, N. J.



The Milwaukee Plant of the RUNDLE MFG. CO.

It was a simple matter for the Rundle Mfg. Co. to decide on equipping their new plant in Camden, N. J., with

TRICO Renewable FUSES

They're "Powder-Packed"

Because the performance of TRICO Renewable Fuses in their Milwaukee plant is so highly efficient and so dependable, the Rundle Mfg. Co. just naturally followed suit in their Camden plant.

Keen buyers of renewable fuses and particular engineers know that the powder-packed elements and other outstanding factors in TRICO Renewable Fuses save money, abolish grief, and prevent waste.

Money-Saving TRICO Factors

- No Premature Blowings
- No Unnecessary Shutdowns
- No Oxidized Contacts
- No Charred Casings
- Copper-to-Copper Contacts
- Reduced Watt Loss
- Time Lag

And they cost no more than other makes of renewable fuses

Free Samples on Request



Approved by
Underwriters'
Laboratories

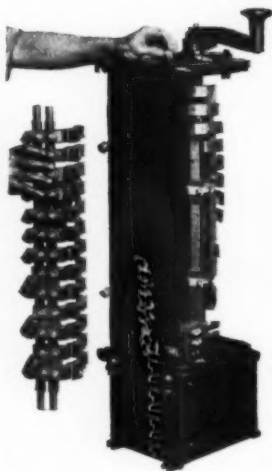
TRICO FUSE MFG. CO., 1007 McKinley Ave., Milwaukee, Wis.

RENEWABLE FUSES — PLUG FUSES — NON-RENEWABLE FUSES — FUSE PULLERS

UNION

The
Most Complete Line of
Drum Controllers
in the World

Easily Removable Finger Assembly



The entire finger assembly can be removed by simply removing two cap screws in the top and one in the bottom. The complete cylinder can be lifted through the top head.

All parts are cadmium plated, except the drum frame which is finished in baked black Japan.

*The only tools needed to completely overhaul a Union Drum are a pair of gas pliers and a screw driver.

CONDUIT BOXES

Conduit boxes are standard equipment and are designed for mounting under bottom of drum. Connections can be arranged at bottom, back, front, or sides. Ample wiring space.


Conduit boxes are of malleable iron, fitted with side and bottom sheet metal plates with knockouts on all sides. Arguto oilless bearing in bottom frame casting.

For Complete Details
See Our Publication 300

UNION ELECTRIC MFG. CO.

10th and Juneau, Milwaukee, Wis.

Manufacturers of
Electric Motor Control Apparatus

Also Associated Manufacturer with,
and Eastern Distributor for
DIAMOND  ELECTRICAL MFG. CO.
Los Angeles, Cal.
Magnetic Motor Control Apparatus

ed by these 70 amp. fuses. This we find to be No. 4. It is recommended, however, that the service fuses be somewhat larger than the main line fuses and this would mean that No. 2 or larger wire be used for the service and main runs.

* * *

Circuits with Mogul Sockets

A query has been made as to whether or not mogul sockets can be used on the same circuit with medium sockets.

There is nothing in the Code to prohibit using mogul sockets on an ordinary branch circuit but there will be some question as to the number of mogul sockets and other sockets that can be attached on one circuit. Rule 807-j specifically limits the number to 8 mogul sockets and, of course, no additional sockets of any type can be added to such a circuit.

If both medium and mogul sockets are to be used on a circuit the demand on that circuit at any time must not exceed 15 amps. as the circuit must be protected by a

fuse not larger than 15 amps. and, of course, there must not be over 12 outlets on the circuit. A circuit of this type may be wired with No. 14 wire but, of course, there is no prohibition against the use of larger wire. The use of larger wire does not, however, permit the use of larger fuses. They still must not exceed 15 amps.

But if the circuit has only mogul sockets then the number of such sockets is limited to 8 and the fuses may be increased to not over 40 amps.

If the size of fuse is to be increased, so is the size of circuit wire. That is, if 20 amp. fuses are to be used the wire must be No. 12; if 25 amp. fuses are to be used, No. 10 circuit wire is to be used, and No. 8 wire for 30 or 35 amp. fuses; No. 6 wire for 40 amp. fuses.

The exception being that on circuits using this larger wire taps not exceeding 18 in. in length and fixture wires of No. 12 wire may be used. This last is, of course, analogous to the use of No. 18 or No. 16 fixture wire on circuits protected with 15 amp. fuses.



MINNEAPOLIS ASSOCIATION ENCOURAGES BETTER WIRING:—At the Northwest Electrical and Radio Show held at the Minneapolis Auditorium, September 24-28, the Electrical Contractors' Association booth was one of the most popular. Approximately 5,000 circulars entitled "Rely on your Electrician—He brings you Comfort and Convenience" were distributed to people who were interested in better wiring. This circular, in addition to listing the names of members in the Electrical Contractors' Association of Minneapolis, emphasized the need for care and caution in the wiring requirements of a building. Great stress was laid upon the fact that this association was organized primarily for protection in the wiring of a building. Tags advising that "Your Electrical Contractor will gladly install for you 3 convenience outlets for \$14.55" were also distributed. Approximately 50,000 people attended this show.



Ettco
A.B.C.
ARMORED · BUSHED · CABLE

Eliminates the "guess-work" in wiring—double armored then bushed. Shorts simply cannot develop. The standard armored cable of practical contractors. It is of extreme flexibility, too.

EASTERN TUBE and TOOL CO., Inc.
BROOKLYN, N. Y.

ANTI-SHORT

Lead-covered A. B. C. Cable

Flexible Steel Conduit

Non-metallic Sheathed Cable

Non-metallic Flexible Conduit



**Give
your
hacksaw
to the plumber
use
TELKOR**

TELKOR grips the armor firmly and makes a clean cut in one operation. TELKOR is easily adjusted to any common size of flexible armored cable. TELKOR eliminates the hard work of armored cable wiring. TELKOR is 100% SAFE. The cutting blades are easily replaced. TELKOR ARMOR CUTTER will increase the efficiency of the installation and safeguard the wireman. Distributed by Jobbers everywhere.

TELKOR INC.

ELYRIA

OHIO

Armor TELKOR Cutter
FOR FLEXIBLE METALLIC ARMORED CABLE
MADE IN U.S.A.

**In the
Editor's Mail**



Credit Control Will Succeed
Editor,

ELECTRICAL CONTRACTING:

"A Little Sand in the Gear Box" editorial in your August issue is quite to the point on the issue of credit plans.

While some of the wholesalers have run to cover in their legal departments and have with considerable awe inspiring energy had "pointed out to them legal difficulties that such plans might run into," applies no more to a credit plan than to the organization of any trade association whose members consist of competitors in a particular field of commercial endeavor. The danger of running into legal difficulties in the latter undertakings assumes a greater danger of what it "might run into" than is prevalent in a credit plan.

You also advocate a national credit plan.

After giving this phase some considerable thought, I fail to find any advantage in this feature. Only confusion caused by non-resident interference and by opposite methods of doing business, and real lack of interest of one community in that of another, and last but not the least, comes the question of interstate commerce which would give some of the objectors a more sanctimonious legal reason why they cannot be a party to progressive co-operation.

However, I rest in the supreme confidence that this sadly needed reform in our industry will succeed, that the seed has been sown on fertile soil and that the roots are well grounded.

Wm. McGuineas,
President, Electrical Contractors Assn. of Chicago.

* * *

**Servicing Cooper-Hewitt
Lamps**

Editor,

ELECTRICAL CONTRACTING:

The undersigned would be glad to hear from any electrical contractor who has been successful in carrying on service work for Cooper-Hewitt lamps. There are several thousand Cooper-Hewitt lamps in use in this territory, principally in hosiery mills and we feel that there should be an opportunity for profit in looking after this business with a proper organization setup.

The Curtis Company,
Paul W. Curtis, President.
Chattanooga, Tenn.



**DIFFICULT INSTALLATIONS
THEIR HOBBY:**—Although these partners modestly insist that it's all in the day's work, they have a long string of hard industrial and commercial jobs to their credit, especially among auto and parts factories, which demand both speed and fine work. F. M. Hydon is on the left, with M. C. Brand.



100% TALKING PICTURE

HEAR & SEE

HEAR & SEE THE BROADWAY BLUES

HEAR & SEE

BRYANT
SUPERIOR WIRING DEVICES

No. 3962 Tumbler Switch

BRYANT
SUPERIOR WIRING
DEVICES
and **THE "TALKIES"!**

Bryant "Superior Wiring Devices" are selected for the wonderful new talking pictures because of their reliable construction both electrically and mechanically, their careful manufacture and the high quality of the materials used.

Various types of Bryant tumbler and rotary switches are standard equipment of several manufacturers of sound motion pictures. Our switches are in constant use in hundreds of theatres throughout the country.

Our Engineering Department will be interested in assisting you in specifying equipment to meet your demands.

THE BRYANT ELECTRIC COMPANY

BRIDGEPORT, CONN., U. S. A.

New York - Philadelphia - Chicago - San Francisco

Manufacturers of "Superior Wiring Devices" since 1888

Manufacturers of Hemco Products

Contracting News

Information of Interest to Electrical Contractors consisting of items of news, short articles, practical ideas, etc. Our readers are invited to contribute to this department.

A National Plan for Credit Control

At a joint meeting of a special committee of the National Electrical Wholesalers Association and the trade policy committee of the Association of Electragists at Niagara Falls, Canada, September 29, the features which a credit control plan should and should not include legally were outlined by counsel for the jobbers.

The actual plan and the details of its operation are to be left to some agency yet to be selected by the jobbers' association with the understanding that the agency selected shall have no activities other than credit work.

This joint conference was so productive for better understanding between the two groups that it was decided to hold similar meetings at least once a year.

The important features of a credit control plan were outlined as follows:

1. The plan should be available only to wholesalers, manufacturers, manufacturers' agents and others who sell to contractors, but should not be available to those who are not selling to contractors, the reason being that credit information is by its nature confidential and should be restricted in this instance to those having occasion to extend credit to contractors.

2. Those cooperating in the plan in any market should each file with the interchange bureau (or other agency operating the plan in that market) his own individual terms of credit, such terms to be adopted by each merchant in his own sole discretion.

3. Each participant in the plan should promptly report to the bureau his overdue accounts.

4. All information received by the bureau shall be confidential and for the use of participants therein only.

5. Any participant in the plan who does not promptly report to the bureau his overdue accounts, or any participant who permits any one other than himself to have any of the said confidential information received by him from the bureau shall cease to have the benefit of receiving such interchange credit therein, until reinstated by a majority vote.

Counsel for the jobbers advised that a plan should not include any of the following features:

(a) Any express or implied agreement that a participant shall or shall not sell or shall or shall not extend credit.

(b) Any provision under which a committee or commissioner or anyone other than the individual participant decides to whom such participant shall or shall not extend credit.

(c) Any provision or any official or unofficial mechanism that makes any of the said information available to anyone not participating in the plan.

New Code Delayed

The National Fire Protection Association announces that due to unavoidable delays the forthcoming edition of the National Electrical Code will not be ready for distribution before December 1. Because the Code, therefore, can hardly become effective prior to January 1 it will, in all probability, be called the "1930" instead of the "1929 Code."

* * *

Credit Control for Kansas City

The Kansas City Chapter of Electragists has worked out with the local wholesalers a plan for controlling contractor credit through the Kansas City Association of Credit Men which is expected to go into operation shortly.

* * *

Tri-State Uniform Ordinance

The adoption of a uniform electrical ordinance for Colorado, New Mexico and Wyoming is now under consideration and pre-

NEW ELECTRAGISTS

The following contractor-dealers have made application and been accepted into the A.E.I. since the publication of the list in the October issue:

CONNECTICUT
New London:
 New London Lighting Fixture Co.
 George A. Williams
Norwich:
 W. H. Nelson

FLORIDA
Miami:
 Dennis & Straw Electric Co., Inc.

LOUISIANA
New Orleans:
 Evans Brothers, Ltd.

MARYLAND
Baltimore:
 Howard P. Foley Co.

MASSACHUSETTS
Hudson:
 Fred B. Dawes
Worcester:
 Frank L. Ham Electric Co.

MICHIGAN
Detroit:
 Howard Electric Co.
 John R. Electric Co.
 Wacław Mierkowski
 John C. Ross
 Frank Szabla

NEW YORK
New York City:
 New York Electrical Installation Co.

PENNSYLVANIA
Miners Mills:
 John Koval
Pittsburgh:
 Cronenweth Electric Co.
 The Dingle-Clark Co.
 Lord Electric Co.
 MacNeil Electric Co.
 Newbery Electric Co.

Scranton:
 A. T. Cooke
 Eiden Electric Shop
 Hammerman & Cader
 Hartman Electric Co.
 Houck Electric Store
 Manhattan Electric Co.
 Mills Electric Co.
 Fred R. Smith
 Smith & Hawley
 Earl M. Toy

Wilkes-Barre:
 John Didwallis
 Davis Electrical Co.
 Robison Electric Co.
 Leon N. Sell



Architect
CLAUDE H. LINDSLEY
Jackson, Miss.

General Contractors
O. M. GWIN CONSTRUCTION CO.
New Orleans, La.

Electrical Contractors
GATES ELECTRIC CO.
Gulfport, Miss.

JACKSON TOWER BUILDING

Jackson, Mississippi

GALVAKOTE

installed in this building provides raceways that measure up to the exacting requirements of a perfect wiring system.

GALVAKOTE and ENAMELKOTE

are now being used throughout the nation in construction of buildings, large and small, of every class and for every purpose. Skilled workmen converting high grade materials into finished product have won for Galvakote and Enamelkote their super-quality reputation.

ENAMELKOTE

presents to the user of rigid conduit pipe, a new and labor-saving

Sealtight Thread Protector

(patents pending)

a two-piece, two-metal device, machine-applied to thread before pipe is enameled and applied in a manner practically to provide an air- and water-tight cover for the thread. Protector stays on until purposely removed and is easily and quickly taken off without the use of special tool. However long stocked under most damaging conditions in storehouse or on the job, removal of Sealtight Thread Protector reveals sharp, clean threads.

No enamel—no dirt—no lime—no cement
—no sand—no rust—no chasing.

Enamelkote with Sealtight Thread Protector is better, but costs no more, than ordinary conduit pipe.

Write us for details concerning this important improvement.

Distributed by leading wholesalers everywhere.

CLAYTON MARK & COMPANY

CHICAGO

Manufacturers of
GALVAKOTE and ENAMELKOTE
SUPER-QUALITY RIGID CONDUIT PIPE

New!

STEEL CITY No. 494



ACTUAL SIZE

SERVICE X-IT

STANDARD PACKAGE of 50—LIST PRICE 70c EACH

The most modern

Convenience Outlet for



- SHOW WINDOWS
- SHOW CASES
- BASE BOARDS
- MANTLES, etc.

Only 3 Parts

The Cover Plate—the Receptacle—and the Box Body which is equipped with a cord grip device for holding the Armored Cable, a permanent part of the box which will not come loose. The smallest, neatest, simplest, and most modern convenience outlet of any Floor Box Line. We consider this new item the last word in convenience outlets of its type. It will be necessary for you to see this device in order to realize its fine mechanical features, its simplicity, ease of installation, and the great savings you will effect by adopting it as standard.

STEEL CITY ELECTRIC CO.

PITTSBURGH, PENNA.

liminary investigations are being made by a special committee appointed by Chairman Sturgeon of the Electrical League of Colorado.

* * *

New A.E.I. Chapter

The Electragists of Scranton and Wilkes-Barre, Pa., and neighboring territory have completed charter affiliation with the A.E.I. and will be known as the Lackawanna & Wyoming Valley chapter.

* * *

New Signaling Systems Code

A new 1929 edition of Regulations of the National Board of Fire Underwriters for installation, maintenance and use of protective signaling systems as recommended by the National Fire Protection Association has just been published.

* * *

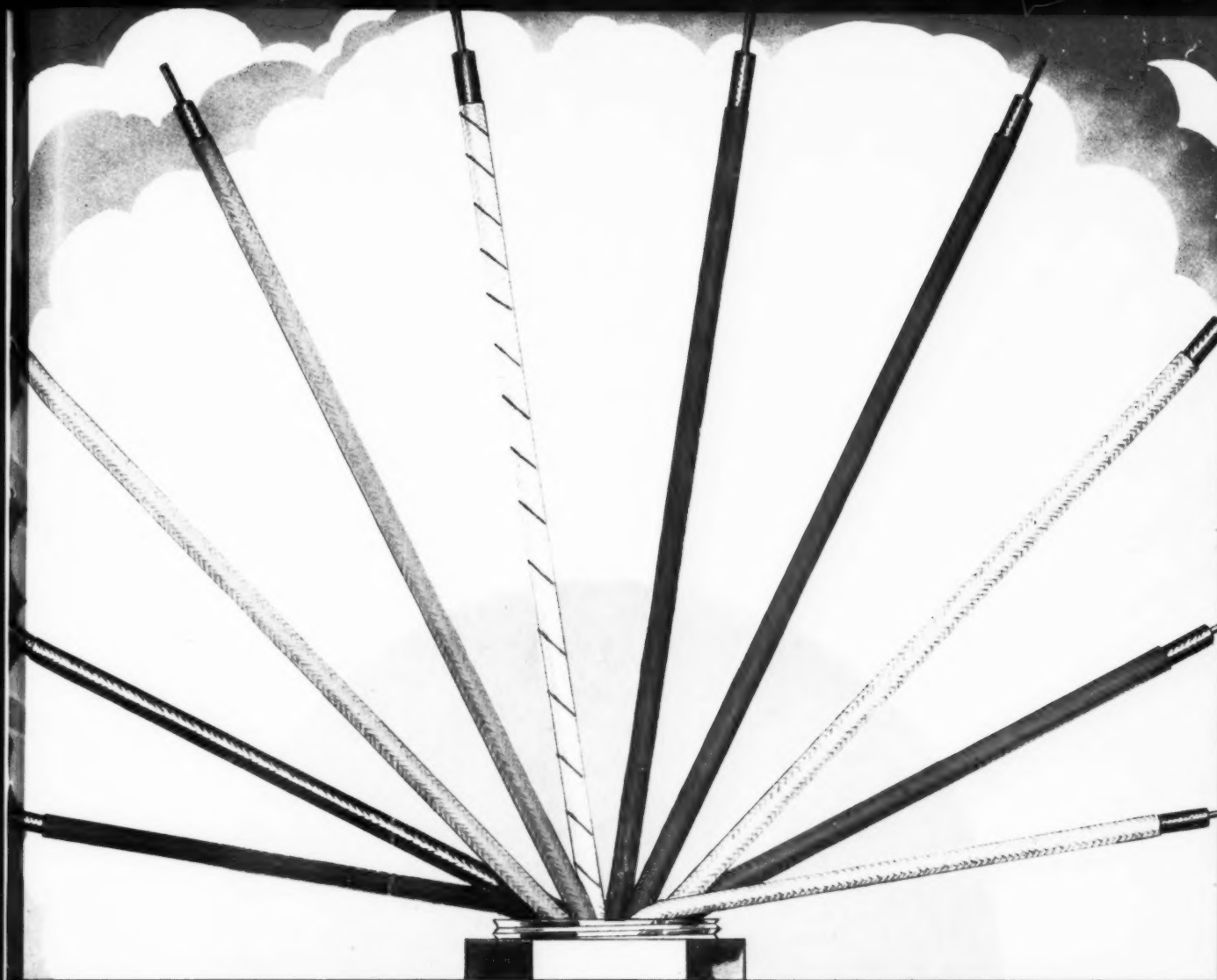
Quantity Survey Bureau for Los Angeles

A quantity survey bureau has been started in Los Angeles, Cal., with J. E. Chandler as survey engineer and H. M. Gailey, electrical engineer. The purpose of the bureau, it is stated, is to help contractors check bids.



MAINE FARM WIRING SPECIALISTS:—E. R. Cook, and H. T. Littlefield, of Littlefield & Cook, in Portland, Me., wired twenty-three farm houses in forty days. This company specializes in old house wiring and has done exceptional work in the rural districts. They also do considerable commercial and mill work, doing such jobs as office buildings, and in the mill field a sardine factory with individual motorized equipment. They have been in the business four years.





COLLYER

"Sunset Brand"

SELF-IDENTIFIED COLORED WIRE

Contractors everywhere speed the work and are assured of accuracy always when they use Collyer Sunset Brand "SELF-IDENTIFIED" Colored Wire. . . . No testing—No tagging is ever necessary. . . . The right hook-up is yours from the start. Made in a dozen different colors with extra smooth finish, for easy pulling. . . . Order today from your jobber, or write us direct, giving us his name.

Mail this Coupon Today!

FREE SAMPLES

COLLYER INSULATED WIRE CO.,
PAWTUCKET, R. I.

Gentlemen: Please send me without obligation on my part, free samples of COLLYER Sunset Brand "SELF-IDENTIFIED" Colored Wire.

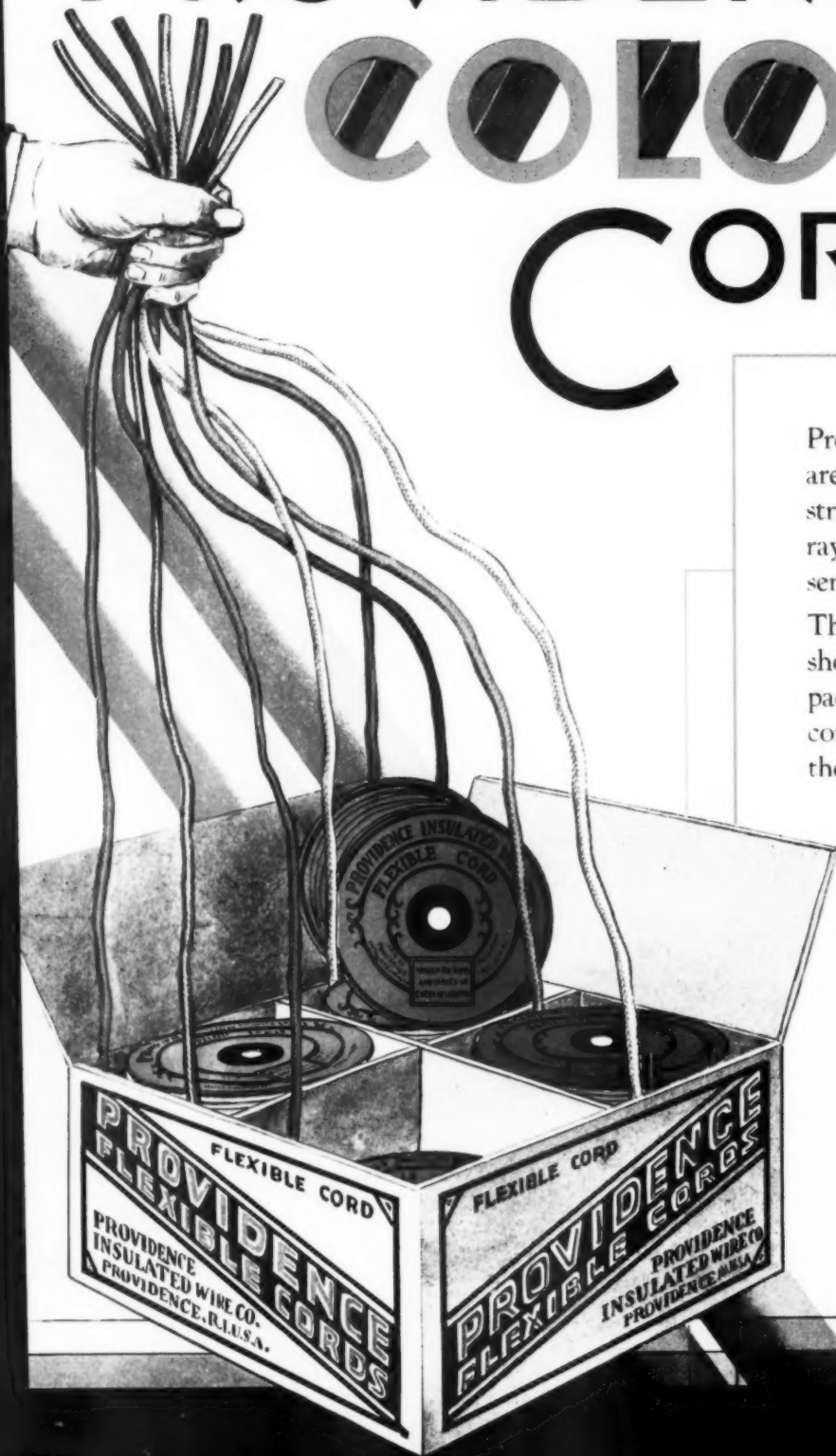
Name.....

Address.....

City..... State.....

COLLYER INSULATED WIRE CO., PAWTUCKET, R. I.

PROVIDENCE COLORED CORDS



Providence flexible cords are furnished in all constructions, with cotton or rayon braids, or with hard service rubber jacket.

The convenient package shown, illustrates the compact way in which these cords are packed, making them easy to handle and eliminating waste. Stocks are carried at the mill and in warehouses in principal cities throughout the country assuring you of prompt delivery service at all times.

PROVIDENCE INSULATED WIRE CO.
PROVIDENCE , RHODE ISLAND



RED SEAL TROPHY:—C. D. ("Dick") Russell, president of the Associated Wholesale Electric Company of Los Angeles, is giving into the custody of Louis J. Meller, an electrical contractor, and president of the Southeast Electric Club, Huntington Park, Calif., a handsome trophy to be presented on January 1, to the member of that electric club who has completed the most Red Seal homes in 1929. A board is being kept to chalk up the Red Seal homes wired each month by members, and reports on homes are a regular feature of the monthly meetings.

Inadequate Wiring Restricts Markets

Among the many speakers at the sixth annual meeting of the Southwestern Section of the International Association of Electrical Inspectors, held in San Francisco, September 18-21, was W. F. Boyd, secretary and first vice president, Chicago, who in a paper entitled "Chickens Come Home to Roost" pointed out that experience had shown defective or inadequate wiring to restrict central station service and market development and declared it inevitable that history would repeat itself unless wiring is made adequate, reliable and safe.

Other speakers were Joseph C. Forsyth, president, I.A.E.I., New York City; J. S. Mahan, chairman, membership committee, Chicago; Dr. Morton G. Lloyd, chief of the section of safety engineering, Bureau of Standards, Washington, D. C., and many others.

The following officers were elected for the coming year: A. E. Johnstone, San Diego, president; E. H. Snedaker, San Jose, vice-president; C. W. Mitchell, San Francisco, secretary and treasurer.

BENJAMIN-STARRETT

Heavy Duty Lighting Panelboards and Steel Cabinets



Safety Front Type Heavy Duty
Benjamin-Starrett Panelboard

The wide variety of circuit arrangements makes it easy to select just the right panel to meet any residence, commercial, institutional or industrial wiring requirement.

Many exclusive Benjamin-Starrett features cut installation time to the minimum, assuring the contractor a sure profit on his panelboard jobs.

The unit sectional construction and individualizing of parts provide the greatest accessibility and flexibility, assuring the highest type of continuous service at a minimum of maintenance expense.



FREE—This 80-page catalog of complete listings and illustrations. Send for it today.

Benjamin Electric Mfg. Co.

General Offices and Factory

DES PLAINES, ILL. (Chicago Suburb)

New York

Chicago

San Francisco

Special Features

Easy to Install

4-inch wiring space on all four sides; adjustable trim clamps; extra large panel mounting holes; slip-off barrier easily removed; one-piece panel back.

Quick Delivery

Boxes carried in stock at local distributors and district warehouses. Unit sectional construction insures quick assembly of panelboard.

All Parts Removable from Front

Should replacement of parts ever become necessary, the switches and fuse receptacles are individual units which may be removed without disturbing the trim. Replacements or changes in branch circuits made without removing panel from box.

Heavy Duty Switches

Branch circuit tumbler switches on both two-fuse and one-fuse panels are heavy duty type—30 ampere, 250 volts.

Three Styles of Cabinets

Safety Front, Protective Front and Open Front to suit any specific requirement.

FEWER PROJECTORS

*appeal to your
Customers*

"National" Floodlight Projectors deliver the maximum of light with fewer projectors and the use of less current . . . or lower operation costs. Their simplicity of construction provides speedy and profitable installation . . . Light in weight, yet designed for heavy duty service . . . Weather-proof and dustproof . . . Our illuminating engineers will gladly provide information that will help you land the business and furnish the best plan for the particular installation. Send in your problem without obligating yourself in the least. Catalog of the complete line and sales prospects are yours for the asking. We back you up and help you become the floodlighting specialist in your territory.



Type 100 for
heavy duty
service

*There is a type
of "National"
Floodlight
Projector to
meet most
every require-
ment.*

National Appliance Co.

Jackson, Michigan

Division of Reynolds Spring Co.

National
**FLOODLIGHT
PROJECTORS**

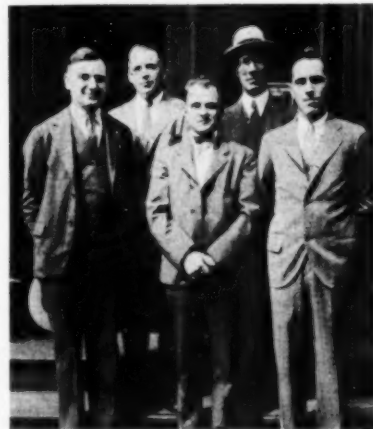
On the executive committee, besides the officers, were named Carl Beaton, Sacramento; H. N. Beecher, Los Angeles; R. H. Cates, Southern California Edison Company, Los Angeles; and E. E. Browne, manager, San Francisco Electrical Contractors and Dealers Association. C. W. Mitchell and George B. Kimball were elected for the three years' term on the executive council of the I.A.E.I.

* * *

Elizabeth Contractors Organize

The Master Electricians' Association of Elizabeth, N. J., was recently formed with almost fifty members. Its officers are: Edward Malloy, president; Charles Schaefer, vice-president; Samuel Rankin, secretary and Felix Height, treasurer.

The association recently secured the passage of a city ordinance providing for examination and licensing of contractors. The ordinance goes into effect November 1. The association celebrated the successful outcome of its efforts by a banquet on October 9 with the Mayor and City Council as its guests.



A COMPANY OF SPECIALISTS:

—The Lewis Electric Co., Grand Rapids, Mich., goes in for all kinds of construction, with thoroughly trained men to take care of the various operations. They have a large and efficient motor sales and service section, with the best of equipment. Left to right: Lyle Lowell, engineering and sales; A. M. Walker, president; Orly Pond, inside sales; Guy W. Lewis, secretary-treasurer, and his son, Gordon W. Lewis. Gordon assists his father in supervising the motor section. Mr. Walker helps to land the big jobs.

The Chicago Civic Opera Is Wired with PARANITE

THE choice of PARANITE for all electrical wiring in the great, new Chicago Civic Opera Building is a tribute to the PARANITE organization, and the consis-

tently superior quality of its product.

Since 1890 PARANITE has been manufacturing rubber insulated wires and cables "better than code requires." Through its long experience, its exceptional manufacturing facilities, and its constant adherence to an ideal, PARANITE has achieved an enviable reputation for its product and its service, among architects, contractors and builders throughout the country.

For every job, large or small, there is a PARANITE Rubber Insulated Wire or Cable of the highest quality—an assurance of long-lived satisfaction and service.

GRAHAM, ANDERSON, PROBST & WHITE
Architects • Chicago

JOHN GRIFFITHS & SON CO.
General Contractor • Chicago

U. S. A. COMPANY
Electrical Contractor • Chicago



The Chicago Civic Opera Building

PARANITE

"If It's PARANITE, It's Right"

RUBBER INSULATED WIRE *and* CABLES

INDIANA RUBBER & INSULATED WIRE CO. • JONESBORO, INDIANA



SELL
-ABolites

For
**Scientific
Sign Board
Illumination**

The reflector for the modern sign where they want brilliance evenly distributed. The reflecting surfaces are formed and proportioned to throw the light rays evenly over the surface and assure proper lighting all over, including the corners.

Built to stand the weather and made strong by the ABolite patented round beaded edge. Made in two types—"SLF" one-piece formed Neck and Holder—and "SLE" threaded two-piece units with socket and cast iron elbow. Each type made in three sizes for 100, 150 and 200 watt lamps.

The ABolite Reflector Co.
2114 Terminal Tower
Cleveland, Ohio

Please send complete data and sales information on ABolite Sign Board Reflectors for illuminating—Outdoor Signs, Wall Signs, Roof Signs, Railroad Yards, Shipping Platforms, Tennis Courts, Golf Practice Courts, Skating Rinks, Athletic Fields, Bridges, Foundries, Steel Mills, Bowling Alleys, Auto Exhibits, Roundhouses, Race Tracks, Airports, Airline Roof Signs.

Name.....
City.....
Address..... State.....

RELIABILITY



A FINE BUILDING IS A GOOD ADVERTISEMENT:—The Barker-Fowler Electric Co., Lansing, Mich., has gone the limit in keeping its home up to the minute as to beauty, utility and comfort. The inside is in keeping with the exterior, and everything possible is provided for customers, visiting salesmen, and employees.

Christmas Lighting Handbook

A complete handbook and a direct mail pamphlet done in roto-gravure covering in detail a successful program for outdoor decorative lighting for Christmas has just been announced by the Society for Electrical Development, Inc.

This plan book describes the functions of several committees and various phases of merchandising where there is need for a tie-in with the wholesaler and retailer. Special sections are also given over to radio, newspaper publicity and actual decorative schemes.

With a tremendous momentum already behind the Christmas lighting idea, it is anticipated by the national committee which has had the work in charge that this year's results will far exceed the splendid showing of 1928 when manufacturers of lamps and decorative equipment reported an increase of more than 25 percent in their business.

(Continued on page 89)

The New Standard of QUALITY in RIGID STEEL CONDUIT



A HOT DIPPED GALVANIZED rigid steel conduit having an additional baked enamel coating of a distinctive golden hue which embodies in its protective merits the same basic values as the precious metal it resembles.

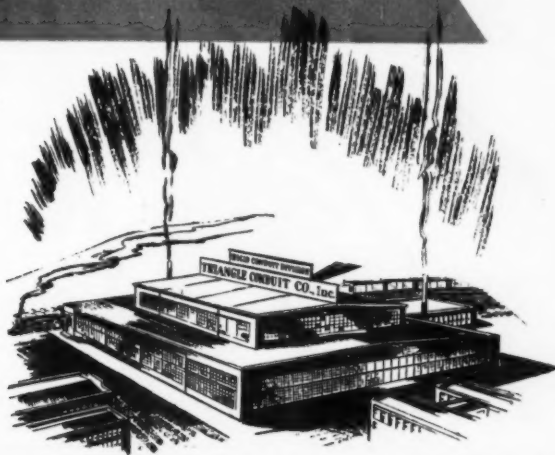
The perfecting of this product is the result of innumerable and exhaustive experiments by our engineering staff.

Also a grade of black enamel that is decidedly superior.

The ductility, too, more than meets the most exacting requirements so necessary in the installation of Rigid Steel Conduit.

Write today for a sample and see for yourself "The distinctive product that is different."

Hot Dipped Galvanized
and Enameled
from our New Plant



TRIANGLE CONDUIT CO., Inc.

General Offices: Dry Harbor Road and Cooper Avenue, Brooklyn, N. Y.

Factories: Brooklyn — Chicago — Wheeling, W. Va.

In Canada: Canadian Triangle Conduit Co., Ltd., Toronto

Specify "LATROBE" FULLMAN MFG. CO. PRODUCTS FOR QUICK SERVICE

**JOBBER'S
EVERY-
WHERE**

- No. 300, Midget Floor Receptacle.
- No. 100 Non Adjustable Watertight Floor Box.
- No. 110 Non Adjustable Watertight Receptacle Floor Box.
- No. 120 Adjustable Watertight Floor Box without receptacle.
- No. 130, Adjustable Watertight Floor Box with T-slot receptacle installed at factory.
- No. 252, 253, 254 Gang Adjustable Watertight Floor Boxes.
- No. 625 Conduit Bender. Bends $\frac{1}{2}$ " or $\frac{3}{4}$ " conduit merely by reversing movable jaw.
- No. 251 Adjustable Watertight Floor Box. Square Cover to Match Gang Box Covers.
- "Keystone" Fish Wire.
- "Bull Dog" Insulator Supports.
- SOCKET CLAMP

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1209-1215 Jefferson St., Latrobe, Pa.

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Firm Name
 Address City.....
 Jobber's Name
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Suggested RESALE PRICES *for* Wiring Supplies

The prices listed on the following pages are merely suggested resale prices for the commonly used standard supplies and equipment employed in electrical construction work. They are based on average current trade costs throughout the country, very largely obtained from jobbers' price sheets, and are also based on average overhead charges.

* * *

Obviously, prices can be suggested only for the widely used products that are nationally distributed, and under no circumstances is this section intended to function as a directory of products or manufacturers.

* * *

The publishers wish to again emphasize that these are merely *suggested* resale prices and while every effort is made to make them universally applicable and accurate we cannot guarantee them or assume any responsibility for errors.

* * *

The prices appearing in this section will be completely revised each month as trade prices may change.

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Suggested Resale Prices for Wiring Supplies

These are merely suggested resale prices for the commonly used products that appear regularly on jobber price lists. They are figured on generally accepted principles for computing resale prices and should cover average conditions but are not guaranteed. (See note on title page.)

A-SUNDRIES

ASBESTOS					
Asbestos Millboard—Per Pound—25c.					
ANNUNCIATORS					
House Type					
No. Drops	Edwards 81 Dixie	Edwards No. 91 White Enam.	Ansonia 301 to 309	P & W "Competition"	P & W "Automatic" Guarantee
2 Drop	\$10.00	\$13.20			
3 "	11.75	15.00	\$10.00		
4 "	13.25	16.75	11.00	\$13.40	\$16.60
6 "	16.75	19.75	15.00	16.75	20.00
8 "	19.75	23.10	17.00	20.00	25.20
10 "	23.00	26.50	19.50	23.40	30.00
12 "	26.50	29.75	22.70	26.25	
14 "			25.25		
16 "			28.00	34.75	
Ex. Drops ea.	2.25	3.00			
(All other Annunciators—Sell at List less 10%)					

COUCH					
Style D Flush Type Wood Face		Style F Flush Wood Face		Style F Flush Metal Face	
Number of Drops	Number Price	Number Price	Number Price	Number Price	Number Price
4	DA 4 \$21.50	FA 4 \$44.80	FA 4 \$49.80	FA 4 \$55.00	
6	DA 6 26.50	FA 6 49.30	FA 6 55.00		
8	DA 8 31.50	FA 8 53.80	FA 8 59.70		
10	DA 10 36.50	FA 10 58.25	FA 10 64.70		
12	DA 12 43.10	FA 12 64.25	FA 12 71.30		
15	DA 15 56.50	FA 15 73.10	FA 15 81.50		
16	DA 16 56.50				
20	DA 20 69.75	FA 20 88.15	FA 20 98.00		
Add for each drop on any of above—\$4.15 per drop					

ADAPTORS—REDUCERS					
For Sockets					
	Bryant Benjamin	G. E.	Hubbell	Weber	Price
Medium to Candelabra...	392	35699	392		\$.25
" " Miniature	391				.20
" " Mogul	421	98	070	292	.50
" " Parallel Blades	KF	1006	682		.30
" " Intermediate	9091	2644	492		.25
T Slot	KL	1684	6771		.50
" " Parallel Blades			6772		.50

SOCKET EXTENSIONS		Price
Benjamin No. 91 Socket Extension—Ea.		\$.40
No. 110 Socket Extension for New Type A Mazda Lamps—Ea.		.15

ATTACHMENTS FOR PULL SOCKETS		Price
For 8" to 14" Reflectors No. 5828—5829—5957—5958		\$.55
For 16" to 20" Reflectors No. 5953—5954—5959—5960		.60

ADJUSTERS		Price
For Cords		
Universal Cord Adjuster Standard No. 1417 3 1/4" Long		\$.10
" " " Factory No. 1418 5 1/4" Long		.22
" " " Reinforced No. 1419 5 1/4" Long		.08
Ball Type No. 1403 & 5 for Type C Cord		.10
" " No. 4634 & 5 for Reinforced Cord		

ACORNS		Price
Hubbell No. 5919 Acorn Adjustable for Linen Cord		\$.10
" " No. 6982 " Standard for Pull Sockets		.10
" " No. 7004 Candelabra Detachable		.10
" " No. 7015 or Bryant 750 Luminous Acorn		.30
" " No. 3946 Tassel Acorn		.10

BOXES, SWITCH

STANDARD SWITCH BOXES					
Description	Depth	Gem Nos. or Similar	A-C-D-E & S	Price Each Black	Price Each Galvd.
For Loom Without Clamps	2 & 2 1/2"			\$.20	\$.22
" " " " " "	2 1/2"			.15	.17
" " " " " " With 2 Loom Clamps	2 1/2"	FC		.20	.20
For Metallic Cable with Clamps	2 & 2 1/2"	X & XS		.20	.23
" " " " " " " "	3"	Y		.34	.37
For Rigid Conduit with't Clamps	2-2 1/2-2 3/4"	B-BM & BS		.20	.22
" " " " " " " "	1 1/2"	R		.22	.25
" " " " " " " "	3 1/2"	BD		.34	.37
Spacers—For Spacer for any box deduct from box price				.04	.05

BRACKET SWITCH BOXES

Gem or Similar	Depth	Gem Nos. or Similar	Price Each Black	Price Each Galvd.
For Loom, Lath Supports—No Clips	2 1/4"	FB	\$.25	\$.30
For Loom, Lath Supports—with Clips	2 1/4"	FCB	.28	.33
For Metallic Cable, Lath Supports with Clamps	2 & 2 1/2"	XB & XSB	.34	.39
For Rigid Conduit, Lath Supports No Clamps	2 & 2 1/2"	BB & BSB	.30	.35

LOCKTITE SWITCH BOXES

Gem or Similar	Depth	FT	Price Each Black	Price Each Galvd.
For Loom with Mtg. Ears without Clamps	2 1/4"	FT	\$.24	\$.29
For Loom with Mtg. Ears & Clips	2 1/4"	FCT	.27	.32
For Metallic Cable, Mtg. Ears & Clamps	2 & 2 1/2"	XT-XCT-XST	.33	.38
For Rigid Conduit, Mtg. Ears without Clamps	2 & 2 1/2"	BT-BST	.29	.34

SECTIONAL SWITCH BOXES

Union or Similar	Boxes	Spacers	Price Each Black	Price Each Galvd.
For Loom or Rigid Conduit 1 1/2" Deep No. 170	No. 170		\$.27	\$.30
For Rigid Conduit 2 1/2" Deep—2 Gang No. 160	No. 160		.87	.95
			.37	.40

SOLID DRAWN SWITCH BOXES

Union or Similar	Single	2 Gang	3 Gang
Solid Drawn for Loom 2 1/4" Deep Type SS Black	\$.16	\$.31	\$.46
" " " Rigid Conduit No. 180-181-187-Galv.	.26		
" " " with Lath Support, 181-BB-GALV.	.26		

TANDEM SWITCH BOXES

Loom, Cable, Conduit	2 Gang	3 Gang	4 Gang	2 Gang Galvanized	3 Gang	4 Gang
Tandem Boxes 1 1/2" & 2" Deep	\$.68	\$1.10	\$1.63	\$.82	\$1.24	\$1.90
" " " 2 1/2" & 2 3/4" " "	.81	1.23	1.90	.95	1.37	2.18

DOOR SWITCH BOXES

Union No. DS-1-3 & 5	Black	Galvd.
Appleton 7010-12-14 without Clamps	\$.52	\$.62
No. DS-2-4 & 6 7011-13-15 with Clamps	.62	.72

LAUNDRY BOX

Gem or Appleton—with Receptacle	Single	Double
	\$1.00	\$1.40

SWITCH BOX SUPPORTS

Any Make	Each
For Concrete Boxes See Page PL-5	\$.20
For Solid Gang Boxes See Page PL-5	

BOXES, ROUND & COVERS, OUTLET

BOXES, OCTAGON & SQUARE

Covers Priced Separately		Depth		Knockouts		Price Each	
Univ. No.	Size	Bottom	Side	Black	Galvd.		
24151	3 1/4" Oct. Deep	1 1/2"	4-1 1/2"	\$.12	\$.14		
24151	3 1/4" " " "	1 1/2"	4-1 1/2"	.14	.16		
24155	3 1/4" " " "	1 1/2"	7-1 1/2"	.14	.17		
26121	3 1/4" Round Shallow	1 1/2"	8-1 1/2"	.15	.17		
26125	3 1/4" " " "	1 1/2"	9-1 1/2"	.13	.16		
26126	3 1/4" " " " No Ears	1 1/2"	9-1 1/2"	.13	.15		
36113	3 1/4" " " "	1 1/2"	9-1 1/2"	.14	.15		
36114	3 1/4" " " "	1 1/2"	9-1 1/2"	.12	.14		
36115	3 1/4" " " "	1 1/2"	7-1 1/2"	.14	.16		
36116	3 1/4" " " "	1 1/2"	8-1 1/2"	.12	.14		
51151	4" Sq. Deep	1 1/2"	5-1 1/2"	.21	.24		
52151	4" Oct. " " "	1 1/2"	5-1 1/2"	.20	.23		
54151	4" " " " "	1 1/2"	5-1 1/2"	.22	.25		
54151	4" " " " "	1 1/2"	5-1 1/2"	.16	.19		
54151	4" " " " "	1 1/2"	5-1 1/2"	.19	.22		
54155	4" " " " "	1 1/2"	9-1 1/2"	.23	.26		
54171	4" " " " "	2 1/2"	5-1 1/2"	.28	.32		
56111	4" Round Shallow	1 1/2"	4-1 1/2"	.12	.14		
56111	4" " " " "	1 1/2"	4-1 1/2"	.14	.19		
56112	4" " " " "	1 1/2"	4-1 1/2"	.10	.12		
56115	4" " " " "	1 1/2"	9-1 1/2"	.13	.16		
56116	4" " " " "	1 1/2"	9-1 1/2"	.11	.13		
56121	4" " " " "	1 1/2"	5-1 1/2"	.16	.19		
56122	4" " " " "	1 1/2"	5-1 1/2"	.13	.15		
56125	4" " " " "	1 1/2"	9-1 1/2"	.30	.35		
72151	4-11/16" Sq. Deep	1 1/2"	5-1 1/2"	8-1 1/2"	.55		
72171	4-11/16" " " "	2 1/2"	5-1 1/2"	8-1 1/2"	.63		

COVERS, ROUND
For 3 1/4" & 4" Octagon & Round Boxes

Universal No.	Size	Description	Price Each	Black Galvd.
24C-1	3 1/4"	Flat Closed Cover Blank 3 1/4"	\$.06	\$.08
24C-2	"	Raised 3/4" Closed Cover Blank	.06	.09
24C-6	"	Flat with 1/4" K.O.	.07	.09
24C-7	"	Raised with 1/4" K.O.	.08	.10
24C-12	"	Raised 3/4" Hole, for Cord or Bush.	.08	.10
24C-28	"	Spider Flat for Surf. Mntd. Devices.	.09	.11
24C-31	"	Raised 3/4" Opng. for Sign Recep.	.08	.10
24C-33	"	Flat Opng. 3/4" for Spec. Sign Recep.	.22	.24
24C-35 & 36	"	Raised Opng. 3/4" for Scrw Sign Recep.	.08	.10
54C-1	4"	Flat Closed Cover	.08	.10
54C-2	"	Raised 3/4" Closed Center	.08	.11
54C-3	"	Raised 3/4" Opening 2 1/4"	.11	.13
54C-6	"	Flat with 1/4" K.O.	.08	.11
54C-7	"	Raised 3/4" with 1/4" K.O.	.10	.12
54C-12	"	Raised with Opening for Cord.	.09	.11
54C-28	"	Flat for Surface Mounted Devices	.10	.12
54C-31	"	Raised for Sign Receptacles	.10	.12
54C-35 & 36	"	" " " "	.10	.12
1172	3 1/4"	Porc. Round Cov. for 3 1/4" Box with hole	.20	
1173	4"	Porc. Round Cov. for 4" Box with hole	.30	

COVERS, SQUARE
For 4" & 4-11/16" Square Boxes

Universal No.	Size	Description	Price Each	Black Galvd.
52C-1	4" Sq.	Flat Closed.	\$.09	\$.12
52C-2	"	Raised Closed Center	.12	.14
52C-3	"	" " with 2 1/4" Opening	.15	.17
52C-6	"	Flat with 1/4" K.O.	.12	.14
52C-7	"	Raised with 1/4" K.O.	.17	.20
52C-12	"	" " Hole for Cord	.14	.16
52C-13	"	Raised 1/4" For Single Flush Devices	.12	.14
52C-14	"	" " " " " "	.13	.16
52C-15	"	" " " " " "	.18	.21
52C-16	"	" " " " " "	.21	.22
52C-17 & 18	4"	Raised 3/4" For Two Flush	.17	.20
52C-19	"	Raised 1 1/4" For Two Flush	.24	.27
52C-21	"	Raised 1 3/4" For Two Flush	.36	.38
52C-28	"	Flat For Surface Mounted	.18	.20
52C-35 & 36	4" Sq.	Raised for Sign Receptacles	.17	.20
52C-48	"	Raised with 2 1/4" Opening	.13	.15
52C-62	"	Raised 1/4" For Single Flush Devices	.12	.14
72C-1	4-11/16" Sq.	Flat Closed	.30	.36
72C-2	"	Raised Closed Center	.36	.40
72C-3	"	Raised 2 1/4" Opening	.40	.44
72C-12	"	Raised with Hole for Cord	.40	.44
72C-14	"	Raised 1/4" For Single Flush Devices	.40	.44
72C-18	"	Raised 3/4" For Two Flush	.53	.58
72C-48	"	Raised 2 1/4" Opening	.40	.44

4" SQUARE COVERS

For Exposed Work

Universal No.	Description	Price Each	Black Galvd.
N-8490 to 8493	4" Cover For One Push or Toggle Switch or one Single or Duplex Receptacle	\$.25	\$.30
N-8493A to 8500	4" Cover for Two Push or Toggle Switches or Two Receptacles or any combination of two devices	.35	.40

EXTENSION RINGS
For Flush Devices

Universal No.	Description	Price Each	Black Galvd.
25151-57151	3 1/4" Octagon Ring—1 1/4" Deep	\$.26	\$.28
53151-55151	4" Square or Octagon Ring—1 1/4" Deep	.30	.32
55171	4" Octagon Ring—2 1/4" Deep	.46	.53

HANDY OR UTILITY BOXES & COVERS

Univ. No.	Appleton No.	G. E. No.	Description	Black or Galvd.	Price
58361	4-CS	58361	Box 4 x 2 1/4 x 1 1/4 Approx. Size		\$.25
	3-OS	3400	" 3 1/4 x 2 1/4 x 1 1/4 " "		.30
58151	4-SS	"	" 4 x 1 1/4 x 1 1/4 " "		.30
58371	4-SSL	"	" 4 x 2 1/4 x 2 1/4 " "		.30
	4-SSLD	"	" 4 x 2 1/4 x 2 1/4 " "		.55
58C1	2541 to 4	34R1	Cover Flat Steel Closed		.13
	2541 to 53	"	" " Steel Rein 1-2-3-4 Hole		.18
58C11	2550 to 53	"	" " Steel with 1/4 or 3/8 Nip.		.30
58C28	2556	"	" " For Snap Switches		.20
58C36	2557-8	"	" " Sign Receptacles		.20
58R3	2537	34R3	Cover For Push Button Switches		.25
58R5	2539	34R5	" " Single Receptacles		.25
58R7	2510	34R7	" " Duplex Receptacles		.25
....	2594	34R14-15	" " Toggle or Tumbler Switch		.25

CONCRETE BOXES WITH COVERS
Galvd. Only

Complete	Depth	1 1/4"	2"	2 1/4"	3"	3 1/4"	4"	5"	6"
With Plate & Stud		\$.35	\$.40	\$.40	\$.45	\$.50	\$.55	\$.60	\$.70
less " " "		.30	.35	.35	.40	.45	.50	.55	.65

SOLID GANG BOXES & COVERS

Galvd. Only	2	3	4	5	6	7	8
Gang	\$.80	\$1.20	\$1.65	\$2.10	\$4.00	\$6.35	\$6.50
Box Price..							
Cover "	.40	.60	.80	1.00	2.00	3.85	3.70

BOXES, OUTLET

ARMORED CABLE BOXES

Comparative Numbers

Size	Stud	Clamps	Bush Union	Pl. Chicago	Appleton	Nat. Met.	Steel City	Galvd. Price
3 1/4 x 3/4 Round	Yes	Two	No	.....	.....	2365	.....	\$ .30
3 1/4 x 1 1/4 "	"	"	Two	.....	.....	544L	2355	36151XS .35
3 1/4 x 1 1/4 Oct.	"	"	No	1288XS	.....	.....	.....	24151XS .35
3 1/4 x 1 1/4 Round	"	"	No	1286	.....	.....	.....	36125XS .30
3 1/4 x 1 1/4 "	Yes	"	Two	1287XS	532L	.....	.....	530L .30
4 x 1 1/4 Oct.	"	"	"	.....	.....	1291XS	2345	54151XS .40
4 x 1 1/4 "	No	"	"	1291X	542L	2348	54151X	.35

Hope
Boxes No. 2-4-12-14 Straight Electric or Combination Each..... \$.20
G. E.
Boxed 5200 & 5201 " " " " " "20
Thomas & Betts
No. 565-66-67-68 Standard Cable Box..... .20
No. 563-54-55-56-57 Dead Ground Type..... .30

BAR HANGERS FOR OUTLET BOXES

Without Boxes

	Appleton	Austin	G. E.	Hemco	City Chgo.	Steel Union	Price
Straight 18" Bar	SBH	900	6600	20	6000	10	\$.25
Straight 24" Bar	SBHL	900A	6601	24	6000	10A	.35
Shallow 19 1/2" Offset Bar	BHS	905	6602	21	6001	11	.30
Shallow 24" Offset Bar	BHSL	.....	.....	.....	.....	.....	.35
Deep 19 1/2" Offset Bar	BHD	915	6603	22	6002	12	.30
Deep 24" Offset Bar	BHDL	.....	.....	.....	.....	.....	.35
Straight Old Workbar	BHOW	920	6604	23	6003	13	.30
Universal Box Cleat	CBH	910	6605	24	6005	14	.15
Straight Saddle Bar 18"	XBH	.....	.....	.....	.....	.....	.20

BAR SETS

Complete with Boxes

For	Size	Ears	Clamps	Bush Plates	Appleton	Steel City	Price
Loom	3 1/4 x 3/4 Round	None	None	None	498L	36116B	\$.35
"	" " "	"	Two	"	498LC	36116BC	.40
"	" " "	Yes	None	"	521L	36115B	.40
"	" " "	"	Two	"	521LC	36115BC	.45
Cable	3 1/4 x 1/2 "	None	"	"	532L	.....	.35
"	3 1/4 x 3/4 "	"	"	Two	539L	.....	.45
"	3 1/4 x 1 1/4 Oct.	Yes	"	None	.....	.....	.50
"	4 x 1 1/4 "	"	"	Two	545L	.....	.50
Conduit	4 x 1/2 Round	None	None	None	BH4C	56112B	.35
"	" " "	Yes	"	"	BH4CL	56111B	.40

For	Size	Ears	Clamps	Bush Plates	Union Chicago	Price
Loom	3 1/4 x 3/4 Round	None	None	None	260B	\$.35
"	" " "	"	Two	"	260CB	.40
"	" " "	Yes	None	"	261B	.40
"	" " "	"	Two	"	261CB	.45
Cable	3 1/4 x 1/2 "	None	"	"	1286B	.35
"	3 1/4 x 3/4 "	"	"	Two	1287XB	.40
"	3 1/4 x 1 1/4 Oct.	Yes	"	None	1289B	.45
"	4 x 1 1/4 "	"	"	Two	1290XB	.50
"	" " "	"	"	Two	1290B	.50
Conduit	4 x 1/2 Round	None	None	None	109B	.35
"	" " "	Yes	"	"	109LB	.40

BUSHINGS & LOCKNUTS

BUSHINGS & LOCKNUTS

For Rigid Conduit

	1/2"	3/4"	1"	1 1/4"
Locknuts—Each.....	\$.01	\$.01 1/2	\$.02 1/2	\$.05 1/2
Bushings—Each.....	.02	.02 1/2	.06	.09
	1 1/4	2"	2 1/2	3"
Locknuts—Each.....	\$.09	\$.11	\$.19	\$.32
Bushings—Each.....	.11	.20	.30	.40
				.58
				1.40

PORCELAIN CLAMP BUSHINGS

"Federal" or Equivalent

No.	K. O.	Inside Size	Outside Size	Wire Size	Bushing Each	Extra Ring Each
A-1	3/4"	3/8	1/2	No. 10	\$.08	\$.04
A-1 1/4	1 1/4"	1 1/8	1 3/8	No. 10	.10	.04
A-2	1 1/2"	1 1/4	1 3/4	No. 8	.10	.04
A-3	1 3/4"	1 3/8	1 7/8	No. 8	.12	.05
A-4	2"	1 7/8	2 1/8	No. 00	.16	.07
A-5	2 1/4"	2 1/8	2 3/8	450 CM	.23	.10
A-6	2 3/4"	2 3/8	2 7/8	1 Mill. CM	.46	.12
B-1	1 1/4"	1 1/8	1 3/8	No. 10	.21	.04
K-1	1 1/4"	1 1/8	1 3/8	No. 10	.32	.04
K-2	1 1/2"	1 1/4	1 3/4	No. 8	.37	.05

"MULTI" PORCELAIN CLAMP BUSHINGS

No.	Inside Size	Outside Size	For Wires	Price Each	Complete
10	3/8	1/2	14 B & S	\$0.08	
12	1/2	5/8	14 B & S	.12	
15	5/8	3/4	14 B & S	.10	
20	3/4	7/8	6 B & S	.10	
30	7/8	1 1/8	2 B & S	.12	
40	1 1/8	1 1/4	000	.20	
50	1 1/4	1 1/2	350,000	.30	
55	1 1/2	1 3/4	600,000	.38	
60	1 3/4	2 1/4	1,000,000	.45	

PORCELAIN NO CLAMP BUSHINGS

Multi- With Spring Clip, Not Threaded

Catalog No., Multi.....	90A	90B	91	92A	93B
Size of Hole.....	1/8	1/8	1/8	1/8	1/8
To Fit Hole.....	1/8	1/8	1/8	1/8	1/8
Price.....	\$.06	\$.06	\$.06	\$.07	\$.07

The Levolier Switch



**Takes the
Smash of
Even a Cold
500 Watt
Gas Filled
Lamp!**

The Levolier Switch might well be called "the little giant of switches." It is the smallest six Amp. Pull Switch made, yet easily takes the knockout smash of switching a 500 Watt Gas Filled Lamp!

Two switches from each day's production are subjected to the test of switching on and off repeatedly, one after the other, in succession, a group of twelve 500 Watt Gas Filled Lamps. By the time the last lamp is reached the first lamp is cold again. This process is repeated for thousands of makes and breaks. Under this tremendous wear and tear the little switch stands up and does its stuff.

The Levolier Fixture Switch is equally adapted for conduit box, canopy, ceiling pan or office fixture installations. It is easy to install and requires no extra wiring, as all that is necessary is to cut one leg of the circuit and attach the two ends to the terminals of the switch.

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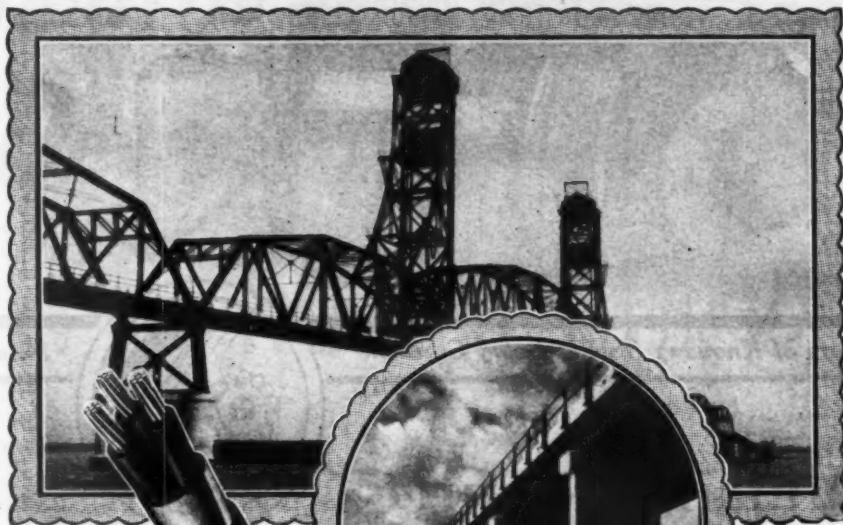


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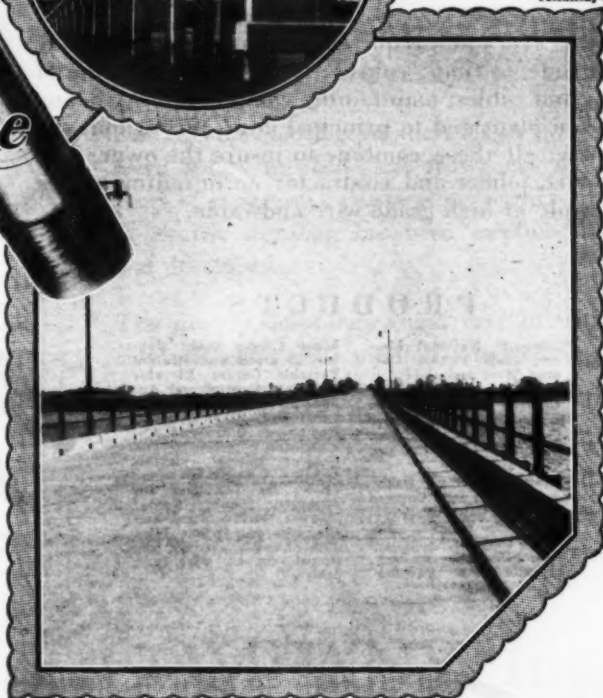


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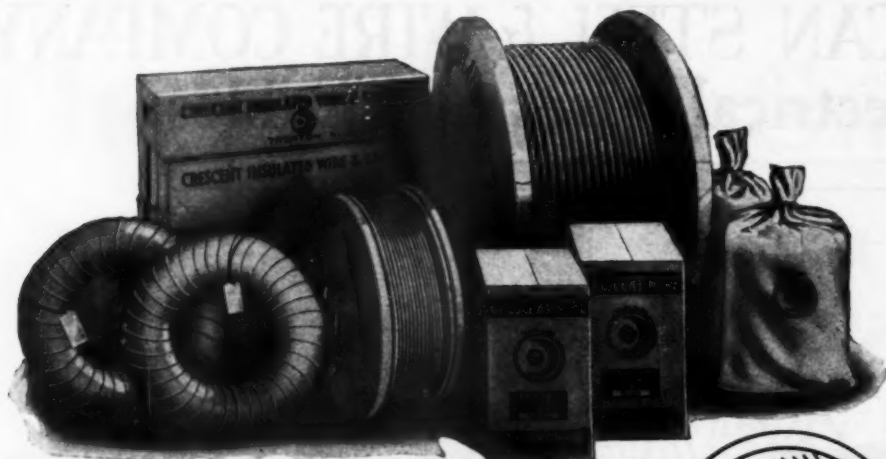
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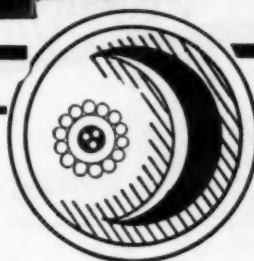
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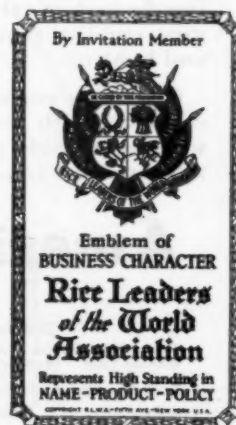
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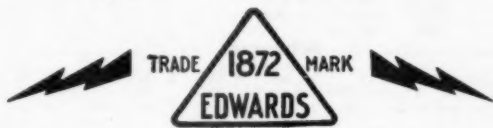
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Boxes, Floor

Bell Push Buttons, Etc.

	THREADED COMPOSITION BUSHINGS							
Size	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 3/4"
Without Locknut.....	\$.05	\$.11	\$.14	\$.15	\$.20	\$.30	\$.45	\$.85
With Locknut.....	.00	.15	.18	.24	.30	.45	.77	1.15
Black Composition.....					3/8"	3/4"	3/4"	1 1/8"
For Sockets.....					\$.01	\$.02	\$.03	\$.08

NON-ADJUSTABLE TYPE

Full- Steel City Co.		Lat- man's robe" Fullman Mfg.	Rus- sell Stoll	Description	Price
477	100	2580		Comp Out. with Std. Rec. & Bell Nozzle	\$3.90
490	100	2590		Less Std. Rec. with Stem Nozzle	3.50
490	100	2500		Comp. Out. with Std. Rec. & Bell Nozzle	2.45
491	.....	.....		Comp. Out. with 20A. Polars. Rec. & Bell Noz.	4.90
499	300	.....		Midjet Out. with 10A. Receipt. No Nozzle	2.45
495	.....	.....		Square Out. Less Receipt. with Bell Nozzle	4.35
496	.....	.....		Square Out. With 15 Amp. Rec. & Bell Nozzle	5.40
497	.....	.....		Sq. Out. With 25 A. Rec. & Large Bell Nozzle	8.60

400	120	2502	Complete-Shallow Box—Less Receptacle	\$4.35
400	Complete-Deep Box—Less Receptacle	5.25
401	130	Complete-Shallow Box With Receptacle	5.40
401	Complete-Deep Box With Receptacle	6.30
420	Complete Large Size Box Without Receptacle	4.90
421	Complete Large Size Box With Receptacle	6.00

441	251	2511	Single Gang with $\frac{1}{4}$ " Cover Plate.....	\$ 5.40
442	252	2512	Two " " " " " " " ".....	10.80
443	253	2513	Three " " " " " " " ".....	16.20
444	254	2514	Four " " " " " " " ".....	21.60
445	2515	Five " " " " " " " ".....	27.00
Extra For 2" Cover Plate, Per Gang.....				.65
Extra For Special Receptacles Latrobe No. T-208, Each Receptacle....				1.00

No. 100	Complete with Receptacle.....	\$4.00
No. 200	" " with Receptacle.....	4.00
No. 1200	Complete without Receptacle.....	2.70
No. 1100	Complete with Receptacle.....	9.00
No. 8000	Utility Outfit with Receptacle.....	.85

TYPE "A" SURFACE CUTOUT BOXES

Black									
Width	Length				Width	Length			
Short	Long	3"	4"	6"	Short	Long	3"	4"	6"
Side	Side	Deep	Deep	Deep	Side	Side	Deep	Deep	Deep
4 1/2	5	\$.55			12	18		\$2.40	\$3.75
4 1/2	6	.60			12	24		2.40	5.20
4 1/2	9	.60			12	30		11.40	11.15
4 1/2	9 3/4	.60			12	36		2.75	3.80
6	8	.80	.85	1.35	15	18		3.00	4.40
6	9	.70	.90	1.65	15	24		5.25	6.05
6	10	.75	1.00		15	30		12.25	14.10
6	12	.80	1.05	1.80	18	18		4.40	5.00
6	15	.95	1.20		18	21		9.90	11.60
8	8	.90	.95	1.60	18	24		12.90	12.90
8	10	1.00	1.05	1.85	18	30		13.95	15.20
8	12	1.10	1.15	2.10	18	36		16.65	17.85
8	15	1.20	1.25		18	40		17.90	19.55
8	18	1.35	1.65		24	24		14.00	15.95
9	9	.95	1.75	2.10	24	30		17.55	19.10
9	12	1.05	2.00	2.40	24	36		20.50	22.10
10	10	1.10	1.30	2.15	24	40		22.30	24.35
10	12	1.35	1.55	2.45	24	47		37.90	41.55
10	15	1.65	2.85	3.40	30	36		24.95	27.20
10	18	1.60	2.25	3.30	30	36		28.10	43.60
12	12	2.10	1.90	2.75	30	42		44.80	48.55
12	15	2.20	2.10	3.25	30	48		51.95	56.20

For Galvanized Boxes Add 50% to above prices.

Ansonia

Name	No.	Description	Buzzer	2 1/4" Bell	3" Bell	4" Bell	Cow or Sleigh
.....	656	Serie. Coil Non Adjust.	\$.45	\$.50	.....	.....	.....
.....	657	Dbble. Coil Non Adjust.	.50	.55	.....	.....	.....
.....	652	Dbble. Coil Round Non Adjust.	.60	.65	.....	.....	.....
Wizard	659	Dbble. Co. Non Adjust.	.90	.95	.....	.....	.....
Eureka	641	Dbble. Coil Adjust. Class B.	1.00	1.05	\$1.25	\$1.00	\$1.90
Acme	631	Dbble. Coil Adjust. Class A.	1.35	1.40	1.50	1.85	2.15
Eureka	621	Dbble. Wood Box Bell	1.30	1.35	1.45	1.70	1.90
Monitor	658	Round Type	.....	1.55	.....	.....	.....
Monitor	661	Round Type	.....	1.85	.....	.....	.....
.....	660	Comb. Bell & Buzzer	.....	1.25	1.35	.....	.....
Wizard	655	Buzzer Oct. Mat	.75	.....	.....	.....	.....
Wizard	666	Watch Case Buzzer	1.30	.....	.....	.....	.....
Ansonia	663	Comb. Bell & Buzzer	.....	1.00	1.10	.....	.....

Edwards

Name	No.	Size	Description	Price
Nubel	735	2 1/4"	Two Coil Non-Adjust.-Gray Enam. Bell	\$.65
"	736	"	" " " " Buzzer	.60
Dixie	720	2 1/4"	" " " " Class C-Non-Adjust. Bell	.95
"	725	"	" " " " Buzzer	.90
Combell	737	2 1/4"	Two Coil Non-Adjust.-Gray Enam. Bell & Buzzer	1.15
Tubell	738	"	Dbble. Coil Non-Adjust.-Gray Enam. Two Bells	1.25
Cadet	710	2 1/4"	Two Coil-Class B-Adjust. Bell	1.05
"	715	"	" " " " " Buzzer	1.00
"	712	3"	" " " " " Buzzer	1.25
"	714	4"	" " " " " Bell	1.60
"	"	"	" " " " " Cow or Sleigh	.90
Buz-A-Bell	730	2 1/4"	Two-Coil-Class C Comb. Bell & Buzzer	1.20
Monitor	156	3"	Monitor Bell-Nickel Plated Gong	1.55
Bronx	750	1 1/4"	Nickel Watch Case Buzzer	1.30

Edwards—Lungen

No. 13 Bells

Size	Price
1 st	\$2.00
1 ^{1/2}	1.80
2 ^{1/2}	1.00
3 ^{1/2}	2.00
4 ^{1/2}	2.20
6 ^{1/2}	0.50
Cow or Sleigh	2.25

No. 15 Buzzers

Size	No.	Price
1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	No. 0.....	\$1.85
2 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	No. 1.....	1.50
2 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	No. 2.....	1.70
3" x 2"	No. 3.....	2.00
3 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "	No. 4.....	2.20

Partrick & Wilkins

Iron Box Bells

Small 2½" Iron Box Bell Non-Adjust. Dble. Magnet.....	\$.75
Fancy Gong Cow or Sleigh Non-Adjust. Dble. Magnet.....	1.65
King Monitor Bell.....	1.65
6" Large Iron Box Bell for Battery Current.....	7.30
8" Large " " " " " " " "	10.50

Buzzers

Small Iron Box Buzzer Non-Adjust. Dble. Magnet	\$.75
Watch Case Buzzer Nickle'd.	1.10
Midgett Buzzer Nickle'd.	1.85
Wood Box Buzzer.....	2.15
Flush Buzzer with Flush Plate.....	3.35

Wood Box Bells

Regular Type		Large Type	
2½" Regular.....	\$ 2.20	6" Regular.....	\$ 6.55
3" ".....	2.30	8" ".....	8.00
4" ".....	2.60	10" ".....	13.10
Standard Cow or Dinner.....	3.10	5" Dinner.....	11.25
3" Dinner.....	5.15	6" ".....	13.05
3" Cow.....	6.55	6" Cow.....	13.05
3" Cow.....	6.75	6" ".....	16.00
4" ".....	10.00		

P. R. Stanley & Patterson

Name	No.	Description	Buzzer	2 nd Bell	3 rd Bell
Competition	400-1	Dble. Coil Non-Adjust.	\$.60	\$.65	
Edison	930-3	" " " "	1.00	1.05	\$1.05
XXX	211-18	" " Adjust. B	1.00	1.05	1.25
Marlo	221-29	" " " "	1.05	1.70	1.85
Edison	402-2	Comb. Bell & Buzzer	1.25	1.25	
Competition	402-3	" " " "	1.25	1.15	
Midget	331-34	All Nickeled Bell	1.50	1.85	
P. R.	240	Watch Case Buzzer	1.45	.....
	240	Monitors	.....	.....

Name	No.	Description	4" Bell	Cow or Sleigh
Competition	400-1	Dble. Coil Non-Adjust.	.....	.....
Eclipse	200-1	" " " " " "	\$1.35	.....
XXX	211-18	" " Adjustable B.	1.60	\$1.90
Marlo	221-29	" " A.	2.25	2.65
Eclipse	208	Comb. Bell & Buzzer	.....	.....
Competition	402	" " " " " "	.....	.....
Midgett	331-34	All Nicked Bell	.....	.....
P. R.	240	Watch Case Buzzer	.....	.....
P. R.	238	Monitor	.....	.....

Schwarze

	Buzzer	2 1/2"	3"	4"	Tea
Single Coil Bell No. 31 & 32....	\$.60	\$.65	\$.80	\$1.50	\$1.35
Two Coil Bell No. 311-321-331.	.55	.60	.75	.95	
Combination Bell & Buzzer No.					
331.....		.05			
Flush Type Buzzer No. 315....	1.20				
Door Bell 26A or 26D.....			1.75		

SKELETON BELLS

Any Make

	2½"	3"	4"	5"	6"	8"	10"	12"
Class A....	\$5.75	\$6.10	\$7.25	\$9.40	\$10.60	\$16.00	\$25.00	\$31.00
" B....	5.85	5.60	6.65	7.85	3.95	14.45	21.40	27.60

BELL PUSH BUTTONS, TREADS, ETC.

PUSH BUTTONS, ETC.
Ansonia

Round Stamped		Price
E-33	1 1/2" Diameter.....	\$.75
506	1 1/2" Diameter Fixed Back.....	.30
507	With Card Holder.....	.50
513	1 1/2" Diam. Loose Back.....	.95
514	1 1/2" " ".....	.45
515	1 1/2" " ".....	.55
527	2 1/2" " Fixed Back.....	.40
579	1 1/2" " 562 Center.....	.75

ELECTRICAL CONTRACTING

Bell Push Buttons, Etc.

Brackets for Insulators

BELL PUSH BUTTONS, TREADS, ETC.—Continued

Round Cast	Price
508 & 510	\$1.00
511	.95
512	1.00
540	.80
550	.85
570	.75
Other Ansonia Push Buttons, Etc.	
D-33 Desk Push.....	\$.75
F-33 Stamped Push.....	.75
G-33 " Diamond Push.....	.75
505 Wood Pear Push.....	.60
521-524 Stamped Push.....	.75
528 to 534 " " " ".....	.95
536-537 " " " ".....	1.00
541 " Oblong Push.....	1.25
543 " 2 Point.....	1.25
544 " For Card.....	1.20
545 " 2 Gang Oblong for Cards.....	1.85
545 " 3 " " " ".....	2.55
545 " 4 " " " ".....	3.75
546 " Oblong 1 Gang.....	1.75
547 " 2 Sgle. Gang.....	1.55
548 " " " " ".....	1.25
549 " " " " ".....	.60
562 " Desk Push.....	.60
577 " Diamond Push.....	.70
578 " Wood Push Button.....	.20
Table Clamp No. 571 without Cord, Floor Push or Plug.....	.90
Floor Push No. 560—Nickel.....	.75
Under Floor Plate No. 561 Nickle.....	.90
Combination Floor Pushes Complete No. 575.....	2.60
Daisy Floor Tread Complete.....	2.75
	1.55

Edwards

Round & Oval Buttons	Price
No. 600 3/4" Diam. Round.....	\$.25
No. 601 2 1/4" Diam. for Card Round.....	.40
No. 603 1 1/4" Diam. Round.....	.25
No. 606 Oval.....	.30
No. 609 Oval 2 x 4 1/2".....	.45
Oblong Push Buttons	
No. 602 2 Gang for Cards.....	\$1.05
No. 604 Oblong.....	.40
No. 605 Oblong.....	.40
No. 607 Single for Cards.....	.40
No. 608 " " " ".....	.45

DESK BUTTONS

Edwards

No. 59 3/4" Hole.....	\$.80	No. 621 3/4" Hole.....	\$1.45
No. 63 1 1/4" " ".....	.75	No. 622 1 1/4" " ".....	1.50
No. 620 3/4" " ".....	.45	No. 625 3/4" " ".....	.50

OTHER BUTTONS

Edwards

No. 235 Floor Plug with Remov. Plug & Extension.....	\$.85
No. 209 Dixie Floor Tread.....	1.60
No. 206 Table Clamp.....	1.10
No. 67 Pendant Push Oak or Mahogany \$.65—White.....	.75
No. 68 Metal Pearl Push.....	.80

DOOR & WINDOW SPRINGS

Edwards

Number.....	28	30	30C	32	34	35	36	236
Price.....	\$.60	\$.90	\$1.10	\$1.60	\$4.45	\$.50	\$.50	\$1.10

(For Door Openers, See Page PL-20.)

ROUND PUSH BUTTONS

Patrick & Wilkins

Stained Wood Push No. 2.....	\$0.15
Oak Wood Regular No. 1.....	.40
Oak Open, Closed & Double Cont. No. 1.....	.25
Oak Triple Contact No. 1.....	.90
Cast Brass 1 1/4" Diam. No. 8.....	.75
Cast Brass 2 1/4" Diam. No. 9.....	.80
Stamped 1 1/4" Diam. No. 29.....	.25
Stamped 2 1/4" Diam. No. 27.....	.25
Stamped Sgle. Card Holder No. 25.....	.40

DESK TYPE

Patrick & Wilkins

Midget 3/4" Hole, Pearl Center.....	\$0.85
Desk 3/4" Hole.....	.40
Mite 1/2" Hole.....	.70
Multiple 3/4" Hole, Black Center.....	1.85
Pony Return 3/4" Hole, Black Center.....	1.85

OBLONG PUSHES

Patrick & Wilkins

No.	Price
16 Cast Brass 4 1/4 x 1 1/4 Screw Cap.....	\$1.65
31 " 4 x 2 1/4 " " ".....	2.35
44 " 4 x 2 1/4 " " ".....	1.45
50 Wrought 4 1/4 x 1 1/4 One Piece.....	.30
55 " 4 x 2 " " ".....	.35
708 Wrought Push & Sock One Piece.....	1.35
907 2 Button & Card Holder.....	2.15
908 3 " " " ".....	2.95
909 4 " " " ".....	4.55

PEAR SHAPED PUSHES

Patrick & Wilkins

Compound Maple 2 Button.....	\$2.00
No. 3 Solid Maple One Piece.....	3.00
No. 4 Fancy Pear, Two.....	.55
Wood Rosettes for above.....	.25
	.40

TABLE AND FLOOR PUSHES AND CLAMPS

Patrick & Wilkins

Improved Table Clamp N. P. Finish.....	\$0.90
Floor Tread Flat Top.....	1.10
Combination Foot Push.....	.80

DOOR & WINDOW SPRINGS

Patrick & Wilkins

No. 1 Door Spring.....	\$.35	Single Window Spring.....	\$.75
Make & Break Type.....	.40	Double " ".....	.70
Door Trip.....	.75	Transom Spring.....	1.50
Closed Circuit Door Spring.....	.40	Cld. Circuit Window Spr.....	.95

COMPOUND OR MULTIPLE PUSHES

Patrick & Wilkins

Style	1 Butt.	2 Butt.	3 Butt.	4 Butt.
No. 3 Wood For Wall Use, Single Row Without Card Holders.....	\$1.50	\$ 1.80	\$ 2.35	\$ 3.00
No. 4 Wood Same As Above But Weighted For Desk Use.....	2.60	2.95	3.50	4.25
No. 5 Wood Angle Type Weighted For Desk Use.....	.....	.....	.....	12.90
No. 10 Wood Base For Wall With Card Holders.....	.....	3.35	3.75	4.00
No. 12 Wood Base Same As Above But Weighted For Desk Use.....	.....	3.75	4.25	5.45
Style	5 Butt.	6 Butt.	8 Butt.	10 Butt.
No. 3 Wood For Wall Use, Single Row Without Card Holders.....	\$3.50	\$ 4.00	\$ 4.95	.....
No. 4 Wood Same As Above But Weighted For Desk Use.....	4.95	5.60	6.75	.....
No. 5 Wood Angle Type Weighted For Desk Use.....	.....	13.75	16.00	\$17.50
No. 10 Wood Base For Wall With Card Holders.....	.....	4.75	6.60	8.00
No. 12 Wood Base Same As Above But Weighted For Desk Use.....	.....	6.00	7.50	8.75

MULTIPLE PUSH BUTTONS

Couch "Pushrites"

With Card Holders

Number of Buttons		Wood Base Type		Flush Brass Plate Type	
Number	Plain Base	Price	Weighted Base	Price	Price
4	7900	\$ 3.35	7980	\$ 3.75	7940 \$ 5.00
6	740	4.60	789	5.20	
8	7910	5.80	7990	6.65	
12	7921	8.30	79010	9.60	7960 13.30
16	7930	10.80	79020	12.45	7970 17.50
20	793	13.30	7902	15.40	797 21.60

COUCH UNMOUNTED PUSH BUTTONS "WORKRITES"

No. 97 for 1/4" Hole.....	\$0.50
Adaptor No. 0684 for same.....	.05

BRACKETS FOR INSULATORS

WOOD BRACKETS

WOOD BRACKETS			
	Each		Each
1 1/4" x 2" x 10".....	\$1.10	1 1/4" x 2" x 12".....	\$1.10
1 1/4" x 2" x 12".....	.10	2" x 2 1/4" x 12".....	.12
1 1/4" x 2 1/4" x 12".....	.10	2" x 2 1/4" x 12".....	.12

PINS

Each	Each
Locust 1 1/4" x 8".....	\$1.10
Oak 1 1/4" x 8".....	.05
Locust 1 1/4" x 9".....	\$1.12
Oak 1 1/4" x 9".....	.08

HOUSE BRACKETS WITHOUT INSULATORS

Peirce

No.	Light Type	Points	Price	No.	Heavy Type	Points	Price	No.	Corner Type	Points	Price
153	One	25	\$.25	154	One	25	\$.40	150	One	25	\$.30
253	Two	55	.55	254	Two	85	.85	242	Two	55	.55
353	Three	90	.90	354	Three	110	1.10	342	Three	85	.85

WIREHOLDERS WITH INSULATORS

Peirce

No.	Wires	Spacing	Price
1507	One	0	\$.25
190	"	0	.30
191	"	0	.30
290	Two	6	.55
299	"	9	.60
394	Three	4 1/4	.80
396	"	6	.85

HOUSE RACKS WITH INSULATORS

Peirce

No.	Wires	Length	Space	Price
183	1	6 1/4	0	\$.40
286	2	12 1/4	0	.85
383	3	12 1/4	3	.95
386	3	18 1/4	6	1.30

SECONDARY RACKS WITH INSULATORS

Peirce

No.	Light Type	Wires	Space	Price	No.	Heavy Type	Wires	Space	Price
276	2	8"	\$.90	278	2	8"	2	8"	\$1.80
376	3	8"	1.30	378	3	8"	3	8"	2.15
1276	2	6"	.85	1278	2	6"	2	6"	1.30
1376	3	6"	1.20	1378	3	6"	3	6"	1.35
2768	2	8"	.90						
3768	3	8"	1.30	1378	3	8"	3	8"	2.00

INSULATORS ONLY FOR ABOVE BRACKETS

Peirce

355 Insulator.....	\$.18	1602 Insulator.....	\$.13
356 ".....	.25	1603 ".....	.10

HOUSE BRACKETS WITHOUT INSULATORS

National Elec. Products

Light Type			Heavy Type			Corner Type		
No.	Points	Price	No.	Points	Price	No.	Points	Price
108-10	1	\$.25	100-10	1	\$.40	111-10	1	\$.30
			123-6-7	1	.35			
108-26	2	.60	109-26	2	.85			
108-29	2	.60	109-29	2	.85	111-29	2	.60
108-36	3	.95	109-36	3	1.20	111-36	3	.85

HOUSE RACKS WITH INSULATORS

National Elec. Products

Light Type			Heavy Type		
No.	Points	Length	No.	Points	Length
104-10	1	5 1/4"	101-24	2	9 1/4"
104-26	2	11 1/4"	101-28	2	13 1/4"
104-33	3	11 1/4"	101-34	3	13 1/4"
104-36	"	18"	101-38	"	21 1/4"
			101-44	"	17 1/4"
104-63	5	18"	101-64	5	21 1/4"
104	Insulator Only	.10	101	Insulator Only	.18

WIREHOLDER ACCESSORIES

National Elec. Products

No. 5000 Corner Chair....	\$.13	No. 5040 Break Arm Strap....	\$.14
No. 5020 Insulator.....	.18	No. 5051 " " Bolt....	.30
No. 5021 U Bolts & Nuts....	.10	No. 5052 T Head Screw.....	.03

SINGLE POINT WIREHOLDERS

National Elec. Products

No.	Price	No.	Price	No.	Price
5211.....	\$.25	5311.....	\$.20	5411.....	\$.35
5214.....	.35	5314.....	.30	5414.....	.40
5215.....	.45	5315.....	.35	5415.....	.50

WIREHOLDERS WITH INSULATORS

National Elec. Products

For One Wire		For Two Wires		For Three Wires	
No.	Each	No.	Each	No.	Each
No. 5011.....	\$.25	No. 5002.....	\$.60	No. 5003.....	\$.85
No. 5001.....	.25	No. 5012.....	.00	No. 5023.....	.85

WIREHOLDERS WITH INSULATORS

National Elec. Products

Light Type			Heavy Type		
No.	Points	Length	No.	Points	Length
105-1X	1	6"	106-1	1	6"
105-1	1	6"	106-10	1	6"
105-10	1	4 1/4"	106-26	2	11 1/4"
105-26	2	10 1/4"	106-29	2	14 1/4"
105-29	2	13 1/4"	106-36	3	17 1/4"
105-34	3	13 1/4"	106-36X	3	17 1/4"
105-36	3	16 1/4"			
105	Insulator Only	.12	106	Insulator Only	.10

B-SUNDRIES, BOLTS, ETC.

CARRIAGE BOLTS

Galvanized

		Length		Length		Length		Length	
1/4" Diam.	Each	3"	3 1/2"	4"	4 1/2"	5"	5 1/2"	6"	6 1/2"
1/4"	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05
1/2"	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08

MACHINE BOLTS WITHOUT WASHERS

Galvanized

		Length		Length		Length		Length	
Diam.	Each	3"	4"	5"	6"	7"	8"	10"	12"
1/4"	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05	\$.05
1/2"	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08	\$.08

STOVE BOLTS

Round or Flat Head

		Length		Length		Length		Length	
Up to 1"	Long	Per Dozen	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"
1/4"	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10
1/2"	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10

TOGGLE BOLTS, STEEL

"Paine"

		Length		Length		Length		Length	
Size-Diameter	Long	3"	3 1/2"	4"	5"	6"	7"	8"	9"
1/4"	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10
1/2"	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10	\$.10

NOTE: For Brass Toggle Bolts—2 1/2 times above prices.

ROUND FIXTURE BLOCKS

Solid Half or Full Plowed

3" x 4" Round	4" x 5" Round	5" x 6" Round
\$.12	\$.15	\$.18
Ceiling Button—P & S Porcelain No. 170—Each.....		
Switch Bases—See Snap Switches Page PL-19.		

CORDS, FIXTURE, LAMP AND HEATER

SINGLE FIXTURE CORD

Single Lamp Cord		Price Per Foot		No. 14 No. 12	
Type	No. 18	No. 16	No. 14	No. 12	
Single Cotton Covered Cord—Light F-64	\$.01	\$.02	\$.02 1/2	\$.03 1/2	\$.04
Single Cotton Covered Cord—Heavy F-32	.01 1/2	.02	.03	.04	.04
Single Artificial Silk Cord—Heavy.. F-32	.02	.03	.04	.04	.04

DOUBLE LAMP CORD

Regular Lamp Cord		Price Per Foot		No. 14 No. 12	
Type	No. 18	No. 16	No. 14	No. 12	
Cotton Covered Twisted Pair.....	C	\$.02 1/2	\$.04	\$.05	\$.10
" " Parallel Pair.....	PO	.03 1/2	.05	.06	.08
" " Twisted Parallel Pair.....	PD	.04	.05	.06	.08
Artificial Silk Twisted Pair.....	C	.03 1/2	.05	.06	.08
" " Parallel Pair.....	PO	.04	.06	.08	.10

REINFORCED CORD

Not Asbestos		Price Per Foot		No. 14 No. 12	
Type	No. 18	No. 16	No. 14	No. 12	
Cotton Covered Light Type 1/4" PS	\$.04	\$.05	\$.08	\$.13	
" " Heavy 1/4" P	.05	.07	.09	.13	
Weatherproof Light Type 1/4" PSWP	.04	.06	.09	.13	
Heavy Type 1/4" PWP	.05	.06	.09	.13	

HEAVY DUTY PORTABLE CORD

"Duracord" or Similar. Extra Reinforced

		Price Per Foot		No. 14 No. 12	
Type	No. 18	No. 16	No. 14	No. 12	No. 10
Type PS Light 2 Cond. Port. Cord..	\$.10	\$.14	\$.21	\$.25	\$.31
" P Heavy 2 " " "	.14	.18	.26	.33	.41
" P " 3 " " "	.18	.22	.30	.37	.45

ALL RUBBER CORD

"Tirex" "Royal" "Super" "Indestructo" or Similar

		Price Per Foot		No. 14 No. 12	
Type	No. 18	No. 16	No. 14	No. 12	No. 10
SJ Junior 2 Conductor Black.....	\$.10	\$.11	\$.13	\$.15	\$.18
" " 2 " Green.....	.10	.13	.15	.18	.21
" " 2 " Black.....	.10	.13	.15	.18	.21
S Type Heavy 2 Conductor Black..	.13	.16	.22	.28	.35
" " 3 " " "	.18	.20	.29	.33	.44
" " 4 " " "	.20	.25	.35	.45	.59
" " Sgle. Cond. Black....	.08	.09	.10	.12	.15

HEATER CORD

		Price Per Foot		No. 14 No. 12	
Type	No. 18	No. 16	No. 14	No. 12	No. 10
Asbestos Covered	\$.05	\$.06	\$.08	\$.10	\$.12
Stand. Twisted or Wound Asbest. 1/4"	.05	.06	.08	.10	.12
American Beauty Heater Cord.....	.07	.08	.10	.12	.15
Rockbestos Heater Cord.....	.07	.07 1/2	.08	.10	.12

MISCELLANEOUS CORD

		Price Per Foot		No. 14 No. 12	
Type	No. 18	No. 16	No. 14	No. 12	No. 10
"Deltabeston" Heater Cord	\$.10	\$.11	\$.12	\$.13	\$.15
Type A Asbestos Braid overall.....	.08	.09	.10	.11	.15
" C Cotton Braid overall.....	.08	.09	.10	.11	.15
" D " " on ea. cond.....	.08	.09	.10	.11	.15
" E Cotton on ea. Cond. & over both.....	.09	.10	.11	.12	.17

NOTE—For Armored Cords See Page PL-9.
" Extension Cords See Page PL-10.
" Fixture Wire See Pages PL-26 & 27.
" Bell Wire See Page PL-27.

CONDUCTING BELL CORD

Spun Silk

		Price Per Foot		No. 14 No. 12	
Number of	Conductors	2	3	4	5
2	Cond. Cond. Cond. Cond. Cond.	\$.08	\$.18	\$.20	\$.21
3	Cond. Cond. Cond. Cond. Cond.	.28	.35	.35	.35

Note—For Armored Lamp Cord See Page PL-9.

Cable, Armored

Cord & Wire Connectors

CONDUIT, ELBOWS, COUPLINGS,
BUSHINGS, ETC.

RIGID CONDUIT

	Black Per Foot	Galv. Per Foot	Cutting & Threading Per Thread	Cutting Only Per Cut
1/2"	.10	.11	.20	.10
3/4"	.12	.14	.25	.10
1"	.18	.20	.30	.15
1 1/4"	.24	.27	.35	.20
1 1/2"	.29	.32	.40	.25
2"	.39	.43	.50	.30
2 1/2"	.62	.68	.80	.50
3"	.81	.90	.70	.60
3 1/2"	1.03	1.12	.80	.80
4"	1.25	1.37		

ELBOWS OR BENDS, COUPLINGS, OR UNIONS,
BUSHINGS, LOCKNUTS, REDUCERS
Price Each

Size Each	Bends or Elbows Black Galv.	Couplings Black Galv.	Bushings Black Galv.	Locknut Galv.	Erickson Coupl. or Unions Galv.	Reducers
1/2"	.15	.17	.10	.11	.02	.21
3/4"	.19	.22	.14	.16	.02	.21
1"	.28	.32	.18	.19	.06	.28
1 1/4"	.39	.43	.24	.26	.09	.42
1 1/2"	.52	.58	.30	.32	.11	.56
2"	.83	.90	.40	.43	.20	.70
2 1/2"	1.40	1.60	.57	.63	.30	1.30
3"	3.70	4.20	.80	.88	.40	1.76
3 1/2"	8.25	9.25	1.08	1.20	.88	2.60
4"	9.50	10.60	1.35	1.45	1.40	3.58

FLEXIBLE METALLIC CONDUIT
"Greenfield", "Flexsteel", or Equivalent

Single Strip Per Foot	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
	.08	.10	.12	.20	.36	.57
Double Strip Per Foot	.10	.12	.14	.23	.40	.64

For Fittings for Metallic Conduit See Page PL-14.
For Non-Metallic Conduit or Loom See Page PL-15.
For Steel Armored Cable & Lead Covered See Next Item.

CABLE, ARMORED & NON-METALLIC
SHEATHEDARMORED CABLE, "BX", "ABC", "FLEXSTEEL", OR
SIMILAR

			Price Per Foot	No. 14	No. 12	No. 10
TWO CONDUCTOR	Solid	Single Strip	.06	.10	.14	
THREE CONDUCTOR	Stranded	"	.09	.13	.17	
FOUR CONDUCTOR	Solid	"	.17	.20		
ONE CONDUCTOR	Stranded	"	.09	.10	.10	
OVALFLEX	2 Conductor	"	.07	.11	.14	
	3 Conductor	"	.10	.14		

Double Strip Armored Cable add 30% to above prices.

Anti-Short Fibre Bushings for ABC Cable, Each. \$.01
Clips or Staples 3/4" for Armored or Non-Metallic Cable, Each. \$.01

"B X L" LEAD COVERED ARMORED CABLE

			Price Per Foot	No. 14	No. 12	No. 10
Single Conductor Solid Lead	Covered		.13	.16		
" Stranded	"		.28	.35	.43	
Two Conductor Solid	"		.34	.43	.50	
" Stranded	"					
Three " Solid	"					
" Stranded	"					

ARMORED LAMP CORD

		Price Per Foot	No. 18	No. 16	No. 14
Plain Armored Lamp Cord	Single Strip	.10	.12	.15	
Reinforced Lamp Cord	"	.18	.20	.28	

Add 30% for Double Strip

NON-METALLIC SHEATHED CABLE
"Romex", "Loomwire", "Wireflex", or similar

	Size	No. 14	No. 12	No. 10
2 Conductor	Without Ground Wire	.05	.06	.09
"	With	.05 1/4	.07	.10
3 " Without	"	.08	.11	.14
3 " With	"	.08 1/4	.11 1/4	.14 1/4

	Size	No. 8	No. 6	No. 4
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	Size	No. 14	No. 12	No. 10	No. 8	No. 6	No. 4
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	Size	No. 14	No. 12	No. 10	No. 8	No. 6	No. 4
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PL-10

Cord & Wire Connectors

SET SCREW CONNECTORS Round Brass

Wire Size	No.	No.	No.	No.	No.
Divided Wall—2 Screws.....	12-14	10	8	6	4
Hole Thru " 4 ".....	10	12	13	14	19
" " 2 ".....	15	16	17	24	
" " 4 ".....	14	16	18	20	22
					25
Wire Size	No.	No.	No.	No.	No.
Divided Wall—2 Screws.....	2	1/0	2/0	3/0	4/0
Hole Thru " 4 ".....	20	28	35	42	70
" " 2 ".....	30	36	40	45	95
" " 4 ".....	34	38	55	70	95

DOSSERT SOLDERLESS CONNECTORS

Size of Conductor	Up to No. 4	3 to No. 1	No. 0	No. 2/0	No. 3/0	No. 4/0
2 Way S & Elbows.....	\$.60	\$.75	\$.80	\$1.00	\$1.20	\$1.40
Cable Taps.....	.05	1.05	1.20	1.40	1.75	2.10
3 Way S & Ys.....	.05	1.05	1.20	1.40	1.75	2.10
Lugs—All Types.....	.45	.55	.60	.70	.90	1.10

CORD & MOTOR CONNECTORS

Arrow	No.	Complete Price	Body Only Price	Cap Only Price
Midget Comp. 8238		\$.50	.....	.....
" " Arrolite 8239		.65	.....	.....
Motor Conn. RP-8221		.65	8221 .45	RP .12
" " RL-8221		.60	8221 .45	RL .20
" " RA-8222		.55	8222 .45	RA .13
" " RM-8222		.65	8222 .45	RM .25
" " TM-8222		.70	8222 .45	TM .25
" " RH-8224		.90	8224 .60	RH .35
" " RG-8281		.90	8281 .60	RG .35
" " 8334 & 35		.90	.....	.....
Bryant				
Motor Conn. KR-130		.60	130 .45	KR .20
" " KG-103		.65	103 .45	KG .25
" " KT-130		.65	130 .45	KT .10
Hubbell				
Cord Connector 5894		.75	5874 .55	5896 .25
" " 6116		.70	6118 .55	5964 .15
" " 6179		.65	6630 .45	6631 .20
" " 6180		.60	6630 .45	6181 .15
" " 5518		.75	5574 .55	5420 .25
" " 7083		1.30	7084 .85	7056 .50
" " 7090		1.80	7091 1.10	7092 .80
" " 6408		1.25	6409 .90	6149 .40
Weber				
Cord Connector 2274		.60	.74 .45	2200 .20
Wirt				
Cord Connector .56		.55	.....	.....

NOTE: For Attachment Plugs and other caps—See Pages PL-16 & PL-17.

E-SUNDRIES

EXTENSION CORDS—MADE UP

With Attachment Plug & Socket, but Guards-Lamps & Handles Extra

Length in Feet	With Lamp Cord and Key Socket No. 18 Twisted	With Reinforced Cord and Key Socket		With Artificial Silk Cord and Key Socket Twist, or Paral.	
		No. 18	No. 16	No. 18	No. 16
4 Foot.....	\$.80	\$.90	\$.95	\$.90	\$.95
6 ".....	.85	1.00	1.05	1.00	1.05
8 ".....	.90	1.10	1.15	1.10	1.15
10 ".....	.95	1.20	1.25	1.20	1.25
12 ".....	1.00	1.30	1.35	1.30	1.35
14 ".....	1.05	1.40	1.45	1.40	1.45
16 ".....	1.10	1.50	1.55	1.50	1.55
18 ".....	1.15	1.60	1.65	1.60	1.65
20 ".....	1.20	1.70	1.75	1.70	1.75
22 ".....	1.25	1.80	1.85	1.80	1.85
24 ".....	1.30	1.90	1.95	1.90	1.95
Length in Feet	With All Rubber Cord and Weatherproof Socket				
	Light	No. 18	No. 16	No. 18	Heavy No. 16
4 Foot.....		\$1.10	\$1.25	\$1.30	\$1.40
6 ".....		1.30	1.50	1.60	1.70
8 ".....		1.50	1.75	1.90	2.00
10 ".....		1.70	2.00	2.20	2.30
12 ".....		1.90	2.25	2.50	2.60
14 ".....		2.10	2.50	2.80	2.90
16 ".....		2.30	2.75	3.10	3.20
18 ".....		2.50	3.00	3.40	3.50
20 ".....		2.70	3.25	3.70	3.80
22 ".....		2.90	3.50	4.00	4.10
24 ".....		3.10	3.75	4.30	4.40

ELBOWS & BENDS For Rigid Conduit

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"
Black.....	\$.15	\$.10	\$.28	\$.39	\$.52
Galv.....	.17	.22	.32	.43	.58
Size	2"	2 1/4"	3"	3 1/4"	4"
Black.....	\$.53	\$1.40	\$3.70	\$5.25	\$9.50
Galv.....	.96	1.60	4.20	9.25	10.60

EXPANSION SHIELDS & ANCHORS

Ackerman-Johnson—Dryvin—Star—Diamond—Cinch—Packtite or Similar

Size of Hole	These Prices Do Not Include Screws. Length In Inches	Inside Diameter	Takes Screw No.	Price Each
1/4"	3/4 to 1 1/4"	3/8"	5-6-7	\$.05
1/2"	1 1/4 to 1 3/4"	1/2"	5-6-7	.06
3/4"	1 3/4 to 2"	5/8"	5-6-7	.08
1"	2 to 2 1/4"	3/4"	8-9-10-11	.06
1 1/4"	2 1/4 to 2 3/4"	7/8"	8-9-10-11	.06
1 1/2"	2 3/4 to 3"	1"	8-9-10-11	.08
1 3/4"	3 to 3 1/4"	1 1/8"	8-9-10-11	.09
2"	3 1/4 to 3 3/4"	1 1/4"	8-9-10-11	.11
2 1/4"	3 3/4 to 4"	1 1/2"	12-13-14	.09
2 3/4"	4 to 4 1/4"	1 3/4"	12-13-14	.11
3"	4 1/4 to 4 3/4"	2"	12-13-14	.13
3 1/4"	4 3/4 to 5"	2 1/4"	15 to 18	.08
3 1/2"	5 to 5 1/4"	2 1/2"	15 to 18	.11
3 3/4"	5 1/4 to 5 3/4"	2 3/4"	15 to 18	.11
4"	5 3/4 to 6"	3"	15 to 18	.14
4 1/4"	6 to 6 1/4"	3 1/4"	15 to 18	.11
4 1/2"	6 1/4 to 6 3/4"	3 1/2"	15 to 18	.20

LAG SCREW ANCHORS (Diamond or Similar)

Takes Lag Screw 1/4"	3/8"	1/2"	5/8"	3/4"
Price Without Lag Screw..\$.14	\$.14	\$.17	\$.24	\$.36
Takes Lag Screw 5/8"	3/4"	1"	1 1/4"	1 1/2"
Price Without Lag Screw.....	\$.42	\$.62	\$.90	\$1.05

FUSES

PLUG FUSES

Standard Plug Fuses—Any Make—\$.07 each or 5 for \$.25
(Some Manufacturers put these fuses up 4 in a box, in which case they should be retailed at 4 for \$.25.)

ENCLOSED FUSES, NON-RENEWABLE

Amps.	Non-Indicating		Indicating	
	Price Each	Fuse	Price Each	Fuse
250 Volts			250 Volts	
600 Volts			600 Volts	
1 to 30.....	\$.10	\$.30	\$.20	\$.40
35 to 60.....	.20	.40	.35	.65
70 to 100.....	.60	1.10	.95	1.75
110 to 200.....	1.20	1.85	1.85	2.90
225 to 400.....	2.15	4.10	3.35	6.35
450 to 600.....	4.10	6.00	6.35	9.25
650 to 800.....	8.95	11.00	13.85	17.35

RENEWABLE FUSES

Amps.	Fuses		Links	
	250 Volts	600 Volts	250 Volts	600 Volts
1 to 30.....	\$.50	\$ 1.10	\$.03	\$.05
35 to 60.....	1.00	1.25	.05	.06
65 to 100.....	2.00	3.00	.10	.10
110 to 200.....	4.00	5.00	.18	.18
225 to 400.....	7.50	11.00	.30	.30
450 to 600.....	11.00	16.00	.60	.60

FUSE WIRE

Size in Amps.....	1/4	3/8	1	2		
Price Per Pound.....	\$65.00	\$6.50	\$2.00	\$2.30		
Price Per Foot.....	.01	.01	.01	.01		
Size in Amps.....	3	5	6	10	15	
Price Per Pound.....	\$1.95	\$1.50	\$1.50	\$1.30	\$1.30	
Price Per Foot.....	.01	.01 1/4	.02	.02 1/4	.03	
Size in Amps.....	20	25	30	40	50	
Price Per Pound.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	
Price Per Foot.....	.04	.05	.07	.08	.10	
Size in Amps.....	60	70	75	80	90	100
Price Per Pound.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Price Per Foot.....	.15	.20	.21	.22	.24	.25

Fuse Strip Any Amperage.....\$1.00 per lb.

Fuse Strip Any Amperage....\$1.00 per lb.

OPEN LINK FUSES

Small Wire Type			
Size in Amps.....	1 to 30	35 to 60	65 to 100
Numbers.....	00-0-1-2-3	2-3-5	Amps.
Price Each.....	\$.10	\$.14	\$.20
Large Strip Type			
Size in Amps.....	25-100	110-200	225-400
Numbers.....	7	7 to 16	10 to 18
Price Each.....	\$.20	\$.30	\$.60
Size in Amps.....	425-600	600-800	800-1500
Numbers.....	10 to 18	28	40
Price Each.....	\$1.00	\$1.75	\$6.55

STAMPED SHEET METAL LINK FUSES

Type of Link.....	B	C	D	E-F-H-I-L-M
C to C Distance.....	1 1/4"	2 1/4"	2 3/4"	See Catalog
Price Each.....	\$.11	\$.11	\$.16	\$.30

ELECTRICAL CONTRACTING

FITTINGS, CONDUIT, THREADED

STANDARD TYPES, COVERS EXTRA
"Condulets" "Tablets" "Unilets" "V. V." "Electrolets"
"Powerlets" "Adaptilets" Etc.

Type	1/4"	3/8"	1"	1 1/2"
A 1-Piece	\$.33	\$.44	\$.60	\$.77
B 2-Piece	.40	.50	.70	1.12
BE 2-Piece	.85	1.05	1.55	2.38
C 1-Piece	.50	.57	.83	1.32
CO 2-Piece	.70	.81	1.05	1.75
D 2-Piece	.48	.58	.80	1.32
E 2-Piece	.40	.50	.70	1.12
F 2-Piece	.40	.50	.70	1.12
LB-LF-LR	.50	.63	.81	1.47
LBB-LFB-LRB	.81	1.12	1.33	1.75
LBL-LBR-LU-LUA	.67	.80	1.12	1.71
T All One Size	.98	1.05	1.40	2.15
TB-TL-TR	.68	.81	1.12	1.71
U-UB-UF	.68	.75	1.10	1.75
X All One Size	.84	1.09	1.47	2.50
Gaskets	.14	.14	.21	.28
Reducers	.21	.21	.28	.42
Unions	.63	.70	1.05	1.48

(See Page PL-13)
For Special Form 6 Fittings See Page PL-13.

Type	2"	2 1/2"	3"	3 1/2"	4"
A 1-Piece	\$2.32	\$5.46	\$ 6.50	\$10.60	\$11.70
B 2-Piece	3.00	5.46	6.50	10.60	11.70
BE 2-Piece	3.65	5.66	7.30	9.10	16.65
C 1-Piece	3.40	6.24	8.10	11.70	14.30
CO 2-Piece	4.46	6.75	10.27	16.38	17.95
D 2-Piece	3.40	6.24	8.10	11.70	14.30
E 2-Piece	3.00	5.46	6.50	10.60	11.70
F 2-Piece	3.00	5.46	6.50	10.60	11.70
LB-LF-LR	3.50	6.50	8.45	13.65	15.60
LBB-LFB-LRB	3.72	8.52	10.75	16.38	18.90
LBL-LBR-LU-LUA	3.58	6.50	9.75	14.30	16.90
T All One Size	5.53	.....	.....	.....	.....
TB-TL-TR	3.58	6.50	9.75	14.30	16.90
U-UB-UF	4.20	7.90	10.15	16.38	18.75
X All One Size	4.90	7.80	13.00	16.90	30.80
Gaskets	.35	.52	.52	.65	.65
Reducers	.70	1.30	1.75	2.60	3.58
Unions	3.78	6.18	10.40	.....	.....

NOTE: For Special Prices on Types F&LB Entrance Fittings See Page PL-13.

COVERS

For Above

	1/4"	3/8"	1"	1 1/2"
Sheet Steel Blank Met. Cover	\$.11	\$.15	\$.33	\$.45
Cast-Iron	.21	.31	.59	.70
Porcelain with Holes	.14	.22	.35	.51
Metal with 1/4 Nipple	.28	.35	.59	.65
" " " 3/8 " "	.33	.40	.64	.70
" " " 1 " "	.35	.42	.66	.73
Porcelain with 1/4 Nipple	.35	.42	.60	.82
" " " 3/8 " "	.42	.48	.67	.88
" " " 1 " "	.49	.57	.74	.95
Porcelain for Drop Cord	.49	.56	.70	.....
Porcelain Weatherproof Sockets	.22	.35	.56	.....
Composition with Holes	.28	.42	.70	1.40
Composition Split with Holes	.56	.84	1.40	2.80
Sheet Steel Blank Met. Cover	1 1/4"	2"	2 1/2"	3 1/2"
Cast-Iron	\$.63	\$.79	\$1.05	\$1.12
Porcelain with Holes	.67	.84	1.12	1.26
Metal with 1/4 Nipple	.83	.....	.....	.....
" " " 3/8 " "	.88	.....	.....	.....
Porcelain with 1/4 Nipple	1.01	.....	.....	.....
" " " 3/8 " "	1.06	.....	.....	.....
" " " 1 " "	1.16	.....	.....	.....
Porcelain for Drop Cord	.....	.....	.....	.....
Porcelain Weatherproof Sockets	.....	.....	.....	.....
Composition with Holes	1.55	1.68	.....	.....
Composition Split with Holes	3.10	3.36	.....	.....

RECEPTACLES & ROSETTES

For Above

(For Description See Crouse Hinds' Catalog)	1/4"	3/8"	1"
Lamp Receptacle without Shade Holder Groove	\$.35	\$.42	\$.50
" " " with Shade Holder Groove	.42	.50	.56
Fixture Rosette with 1/4 or 3/8 Nipple—Male or Female	.56	.63	.70
Cord Rosette with One Outlet	.42	.50	.56
" " " Two Outlets	.50	.56	.63
Polarity Plug Receptacle for Hubbell 6 Amp.	.56	.63	.70
" " " 20 " "	.77	.85	.91
Attachment Plug Receptacle for Hubbell 6 Amp.	.56	.63	.70

FS SERIES FOR FLUSH DEVICES

Shallow Type Without Covers, Any Make

No. Gangs	No. Pipe Outlets	Series	1/4"	3/8"	1"
Single Gang	One	FS-FSA	\$.91	\$1.05	\$1.19
" " " Two	Two	FSC-FSL-FSR-FSLA-FSS-FSAA	1.05	1.25	1.54
" " " Three	Three	FSCA-FSCC-FSCT-FST	1.40	1.75	2.03
" " " Four	Four	FSX-FSCD	1.68	2.10	2.38
Two Gang	One	FS-FSA	1.68	1.82	1.96
" " " Two	Two	FSC	1.82	1.96	2.17
" " " Three	Three	FSD	2.03	2.17	2.31

FS SERIES FOR FLUSH DEVICES—Continued

No. Gangs	No. Pipe Outlets	Series	1/4"	3/8"	1"
2 Gang Tandem	One	FS	2.31	2.45	2.59
" " " Two	Two	FSC	2.45	2.59	2.73
Three Gang	One	FS-FSA	.....	2.52	2.73
" " " Two	Two	FSC	.....	2.66	2.87
" " " Four	Four	FSD	2.73	3.01	3.32
Four Gang	One	FS-FSA	.....	3.08	3.36
" " " Two	Two	FSC-FSSE	.....	3.29	3.50
" " " Five	Five	FSD	3.44	4.00	4.34

COVERS FOR FS FITTINGS

Description	Single Gang	2 Gang
Metal Cover for Std. Flush Push Switches	\$.21	\$.42
" " " Tumbler or Toggle Switches	.21	.42
" " " Rotary Switches	.21	.42
Metal Cover for Single Flush Receptacle	.21	.42
" " " Duplex Flush Receptacle	.42	.84
" " " with Lift Cover	.84	1.68
" " " for Disapp. Door Receptacle	1.12	2.24
" " " with 1/4 Metal Nipple	.40	.....
" " " " 3/8 " "	.54	.....
" " " " 1 " "	.56	.....
Blank Metal Cover Sheet Steel	.14	.28
" " " Cast-Iron	.28	.70
Porcelain Cover with Holes	.28	.....
Cast Cover with Guard for Push Switches	.49	.61
Description	3 Gang	4 Gang
Metal Cover for Std. Flush Push Switches	\$.63	\$.84
" " " Tumbler or Toggle Switches	.63	.84
" " " Rotary Switches	.63	.84
" " " Single Flush Receptacle	.63	.84
" " " Duplex Flush Receptacle	1.26	2.52
" " " with Lift Cover	2.52	3.36
" " " for Disapp. Door Receptacle	.....	.....
" " " with 1/4 Metal Nipple	.....	.....
" " " " 3/8 " "	.....	.....
" " " " 1 " "	.....	.....
Blank Metal Cover Sheet Steel	.56	.84
" " " Cast-Iron	1.05	1.40
Porcelain Cover with Holes	1.05	1.40
Cast Cover with Guard for Push Switches	1.40	1.96

METAL COMBINATION PLATES FOR FS SERIES

2 Gang for One Switch and one Sgle. or Duplex Receptacle	\$.70
3 " " " " " Bull's Eye with Ruby Glass	1.75
2 " " " " " One Receptacle & one Bull's Eye	1.96

NOTE: Although our prices on conduit fittings apply to all makes we use Crouse Hinds' numbers and lists for convenience.

G & H WITHOUT ADJUSTABLE BAR

Type	5 Amp.	10 Amp.	15 Amp.	20 Amp.
Crouse Hinds or Similar	1/4"	3/8"	1"	1 1/2"
G.....	\$.56	\$.70	\$1.05	\$1.26
GL.....	.63	.77	1.12	1.26
GA-GLA-GT.....	.84	.98	1.33	1.54
GTA-GX.....	1.05	1.19	1.54	1.80
H.....	.42	.56	.91	1.05
HA.....	.49	.63	.98	1.12
HH.....	.66	.70	1.05	1.19
HHC.....	.84	.98	1.33	1.54
HLA.....	.68	.77	1.12	1.26

Type	15 Amp.	20 Amp.	25 Amp.	30 Amp.
Crouse Hinds or Similar	1/4"	3/8"	1"	1 1/2"
G.....	\$.90	\$1.05	\$1.40	\$1.61
GL.....	1.05	1.19	1.54	1.80
GA-GLA-GT.....	1.26	1.40	1.80	2.03
GTA-GX.....	1.54	1.68	2.03	2.24
H.....	.84	.91	1.05	1.19
HA.....	.91	.98	1.12	1.26
HH.....	.98	1.05	1.19	1.33
HHC.....	1.26	1.40	1.80	2.03
HLA.....	1.05	1.19	1.54	1.80

G & H WITH ADJUSTABLE BAR

Type	5 Amp.	10 Amp.	15 Amp.	20 Amp.
Crouse Hinds or Similar	1/4"	3/8"	1"	1 1/2"
G.....	\$.77	\$.91	\$1.26	\$1.40
GL.....	.84	.98	1.33	1.54
GA-GLA-GT.....	1.05	1.19	1.54	1.80
GTA-GX.....	1.26	1.40	1.80	2.03
H.....	.63	.77	1.12	1.26
HA.....	.70	.84	1.19	1.33
HH.....	.77	.91	1.26	1.40
HHC.....	1.05	1.19	1.54	1.80
HLA.....	.84	.98	1.33	1.54

Type	15 Amp.	20 Amp.	25 Amp.	30 Amp.
Crouse Hinds or Similar	1/4"	3/8"	1"	1 1/2"
G.....	\$1.26	\$1.40	\$1.80	\$2.03
GL.....	1.33	1.54	1.80	2.03
GA-GLA-GT.....	1.54	1.68	2.03	2.24
GTA-GX.....	1.75	1.89	2.24	2.52
H.....	1.12	1.19	1.33	1.40
HA.....	1.19	1.26	1.40	1.54
HH.....	1.26	1.33	1.54	1.68
HHC.....	1.54	1.68	2.03	2.24
HLA.....	1.33	1.40	1.68	1.80

DOUBLE PROFITS!

EVEREADY Dry Batteries give you a *double* profit on every sale. They give you a liberal profit on the retail selling price and they give you an additional profit on the time they save you in selling. For these batteries sell *fast*! A selling policy extending over 33 years of making better batteries and advertising them consistently to the public has built up a powerful consumer demand. Because most people already know and accept Eveready Dry Batteries it takes less time to sell them and this gives you more time for selling other articles.

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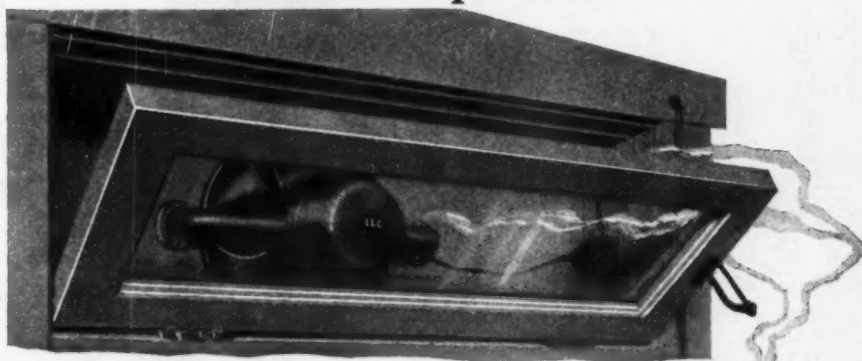
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New! ILG AIR TRANSOM VENTILATOR

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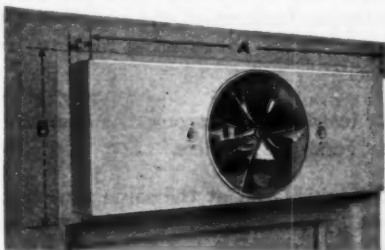
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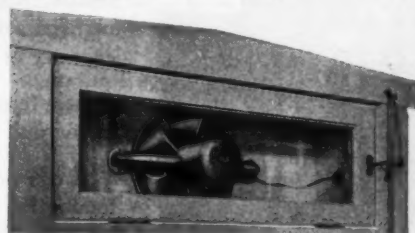
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The Ilgair Transom Ventilator is specifically recommended for apartment buildings, homes, hotels, offices, etc. Can be easily and economically installed in old or new buildings.

Investigate this latest development in an Ilgair that offers a wealth of new sales features and a substantial profit. Ask your jobber or sign and mail the coupon for detailed trade information.



Outside View showing over all dimensions. Here you see the "two-way" self-cooled motor feature. Note the simplicity and compactness of the installation — the complete outfit is enclosed.



Inside View showing transom door closed. When the door is in this position the jam switch is disconnected and the ventilator is idle.



Reg. U. S. Pat. Off.

ILG PRODUCTS INCLUDE MOTOR DRIVEN PROPELLER FANS, BLOWERS AND UNIT HEATERS

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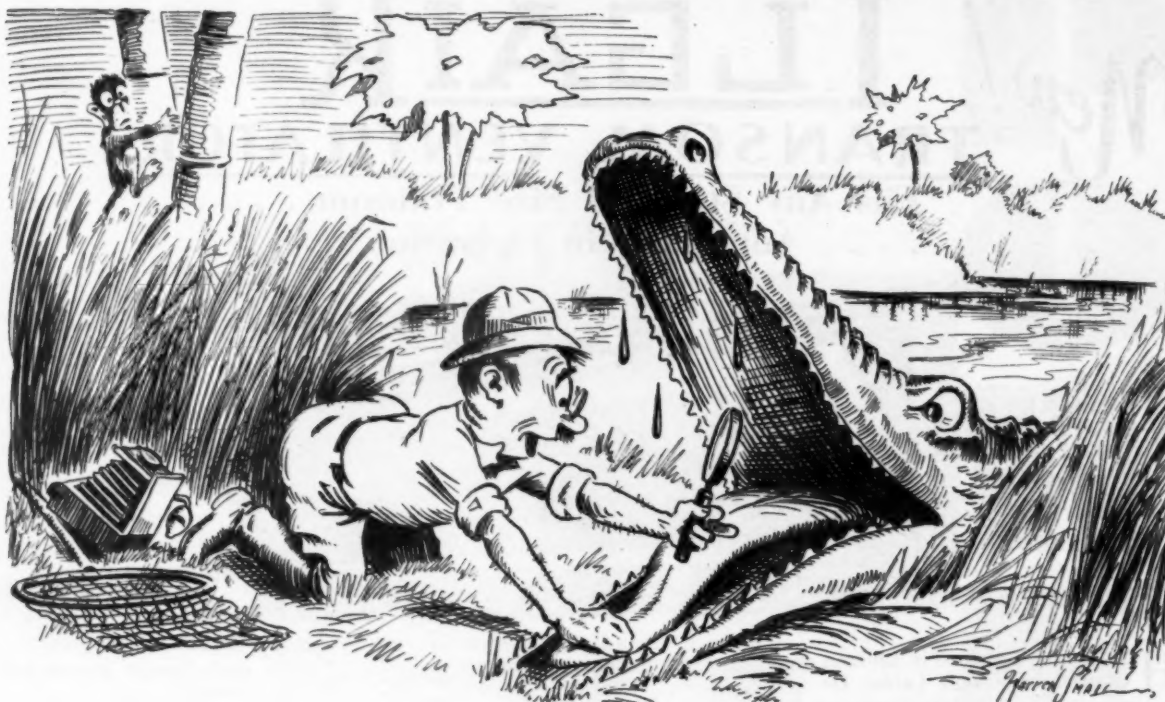
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Ignorance is Bliss

MOST people know just enough about electricity to realize that when a fuse blows it can be replaced, or if no fuses are available, service may be restored by backing the blown fuse with a penny. But in their ignorance they don't realize that they are destroying the protective features of the panelboard and perhaps subjecting the wiring to severe service by substituting fuses of larger capacity or by shorting them out altogether.

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Ask the nearest Westinghouse office for complete information today.



Nofuz Panelboard Equipped with 15-Ampere Circuit-breakers in the Branches.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY
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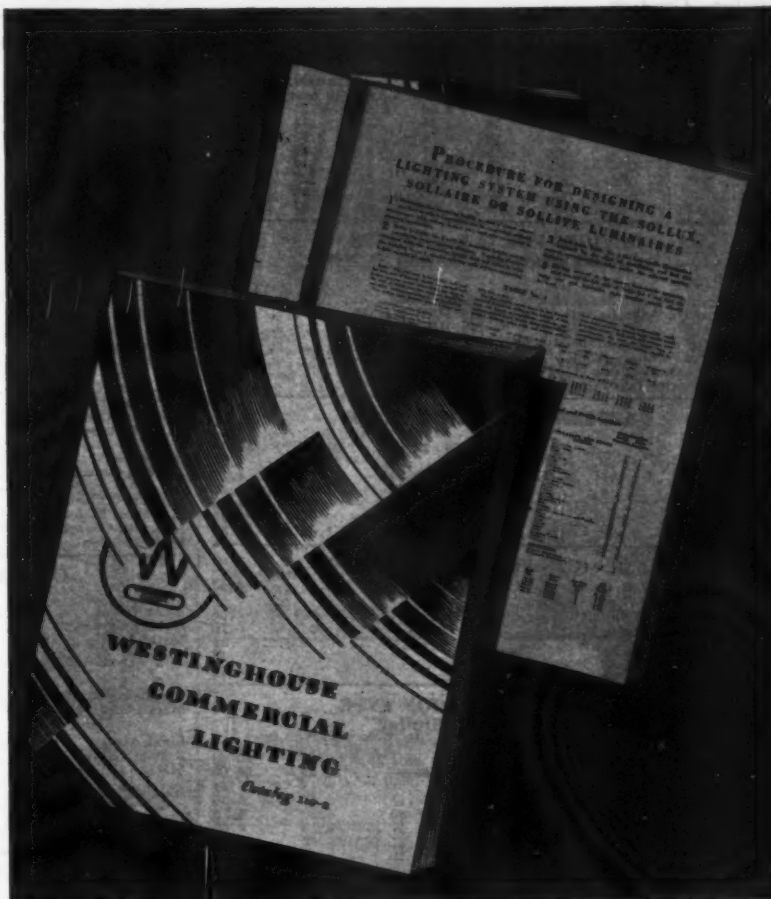
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This
new catalog
supplies the
HELP you



need for planning lighting installations



The Westinghouse Sollar is known for such features as the dust and insect-proof globe holder and the "fill out" cap that makes relamping easy, without removing the globe from the holder.

Put your lighting equipment sales on a new, profitable basis with Westinghouse Luminaires and with the selling helps that Westinghouse provides. You'll find help in this new Westinghouse Commercial Lighting Catalog — help in the form of a line of luminaires offering a wide selection in design at a price range that meets your tough competition. And there's further help that makes it easy for you to sell lighting equipment on the proven basis of the increased service that correct lighting provides.

Here, condensed into a single page of easily understood directions, is all the data you need for intelligent selling on the average job. You can talk about the advantages of correct lighting — and then back up your selling with the kind of an installation that

puts these advantages to work for your customer. And whenever you are puzzled by some out-of-the-ordinary lighting problem, ask the Westinghouse Illuminating Engineering Bureau for help. They like to work on jobs of that kind.

Ask the representative of your Westinghouse agent-jobber about this catalog and about the other sales helps that Westinghouse offers, and request the services of the Westinghouse Illuminating Engineering Bureau through him, when you need them.

WESTINGHOUSE ELECTRIC & MFG. CO.
Interior Lighting Section South Bend, Ind.

Westinghouse



STANDARD TYPES—Continued

	Adjustable Bar						Adjustable Bar					
	Without			With			Without			With		
	5 Amp.	10 Amp.	30 Amp.	5 Amp.	10 Amp.	30 Amp.	5 Amp.	10 Amp.	30 Amp.	5 Amp.	10 Amp.	30 Amp.
Porcelain.....	\$.28	\$.35	\$.56	\$.21	\$.21	\$.49						
Blank Metal.....	.21	.28	.35	.14	.14	.35						
Porcelain with Nip.....	.42	.49	.70	.35	.35	.68						
" " " " " "	.49	.56	.77	.42	.42	.70						
" " " " " "	.68	.68	.68	.49	.49	.84						
Metal.....	.35	.42	.49	.28	.28	.42						
" " " " " "	.42	.49	.56	.35	.35	.49						
" " " " " "	.49	.56	.63	.42	.42	.56						

DEVICES FOR G & H SERIES
(See Page 51 Crouse-Hinds Catalog No. 2000)

Lamp Receptacle with Shade Holder Groove No. H546.....	\$.75
Fixture Rosette Porcelain with $\frac{1}{8}$ " Nipple No. H549 & H548.....	.75
" $\frac{1}{4}$ " No. H551 & H552.....	1.00
Fixture Rosette Composition with $\frac{1}{8}$ " Nipple No. H571 & H572.....	.60
Cord Rosette Porcelain H553.....	.75
" $\frac{1}{4}$ " Composition H554.....	.75
Lamp Receptacle—One Piece—No. H556 or 557.....	.75

	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"
A-JB-JU	\$.84	\$1.05	\$1.50
L	.98	1.10	1.60
T	1.19	1.33	1.80
X	1.33	1.50	1.60
K	1.50	1.61	1.80
	.70	.91	1.30
KA-KB-KC-KD	.84	1.05	1.50

Lamp Receptacle S. H. Groove.....	\$ 8.00
No S. H. Groove.....	.80
Fixture Rosette with Nipple.....	.50
Plug Receptacle 6 Amp.....	.70
20.....	.90
Cord Rosette.....	.40
Blank Cast Cover.....	.40

Crouse Hinds or Similar			
Prices are for Iron Fittings and include Guard and Globe	Form 75		
V-VA Complete as Above.....	3/4"	85	1"
VB-VC-VL Complete as Above.....	3/4"	92	\$6.00
VCA-VLA-VT-VE-VS Complete as Above.....	5/8"	11	6.25
VTA-VX Complete as Above.....	5/8"	30	6.50
VXA Complete as Above.....	5/8"	83	6.75
VF-VK-VP Complete as Above.....	5/8"	50	6.63
VD-VJ Complete as Above.....	5/8"	83	6.90
Prices are for Iron Fittings and include Guard and Globe	Form 200		
V-VA Complete as Above.....	3/4"	79	\$7.10
VB-VC-VL Complete as Above.....	3/4"	78	7.30
VCA-VLA-VT-VE-VS Complete as Above.....	5/8"	60	7.60
VTA-VX Complete as Above.....	5/8"	77	8.10
VXA Complete as Above.....	5/8"	93	8.75
VF-VK-VP Complete as Above.....	5/8"	70	7.90
VD-VJ Complete as Above.....	5/8"	78	7.90

	Form 200	Form 201
Guard with Half Metal Shade.....	\$3.90	\$4.25
" Gauge Metal Shade.....	6.50	7.80
" without Shade.....	2.34	2.90
Globes only, clear.....	1.12	1.15
" opal.....	1.54	2.30
" green-blue & orange.....	2.35	3.30
" ruby.....	3.30	4.00
Brass Reflector Holder only.....	1.75	2.10
Threaded Blank Covers Iron Black Finish.....	1.05	1.40
Sealing Plate Iron Galv. Finish.....	.21	.30
Receptacle with Gasket & Screws.....	.56	.56

For Type GS Fittings
(Page 89 Crouse Hinds Catalog No. 2000)

	Form 75		Form 200	
	Iron	Brass	Iron	Brass
Pendant or Bracket Type Complete...	\$7.93	\$11.18	\$8.80	\$12.4
Receptacle Only.....				.5

NOTE: Above numbers and figures are for Crouse-Hinds' make or similar.

NOTE: Above numbers and figures are for Crouse Hinds' make or similar

STANDARD TYPES
"Kondu" Crouse-Hinds "Appleton" or Similar

Types	16"	14"	12"	10"
Without Covers	\$.46	\$.62	\$.84	\$1.25
A.	.53	.70	.95	1.40
BE.	.95	1.23	1.79	2.70
C.	.74	.94	1.33	2.00
CB.	1.04	1.34	1.86	2.80
D.	.74	.94	1.29	2.00
E.	.53	.67	.94	1.40
LB-LF-LL-LR.	.81	.98	1.40	2.10
SE.	.81	1.09	1.71	2.60
T-FL-TR.	1.04	1.34	1.85	2.80
TB.	.67	1.82	2.38	3.60
U & UB.	.91	1.12	1.54	2.40
X.	1.33	1.82	2.45	3.80
XB.	2.03	2.32	3.29	...
1B1-1BR-1U	1.26	1.68	2.31	...

Types Without Covers	1 1/2"	2"	2 1/2"	3"
A.....	\$1.01	\$3.15	\$	\$ 8.10
B.....	1.96	3.85	6.65	8.10
BE.....	3.64	6.30	11.70	13.30
C.....	2.66	5.11	8.55	11.15
CB.....	3.85	6.19	9.90	14.30
D.....	2.66	5.11	8.55	11.15
E.....	1.96	3.85	6.65	8.10
LB-LF-LL-LR.....	2.94	5.18	8.80	11.50
SE.....	3.90	7.00	11.85	14.85
T-TL-TR.....	3.85	6.16	9.90	14.40
TB.....	5.18	9.00	13.30
U UR.....	6.39	10.10	13.30	15.15
X.....	4.48	8.25	12.35	19.15
XB.....	16.55	17.75

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H Couplings.....	1 1/2"	3"	1"	1 3/4"
KO Box Connector.....	\$.32	\$.48	\$.83	\$1.11
NO ".....	.20	.29	.67	1.34
SCL Cable Connector.....	.24	.31	.56	.84
SLP Short Elbow.....	.13	.17	.24	
KOL Box Connector.....	.39	.52	.83	1.06
KOR Reducer.....	.43	.58	.98	1.54
	.68	.88		
H Couplings.....	1 1/2"	2"	2 1/2"	3"
KO Box Connector.....	\$1.54	\$3.21	\$4.00	\$6.37
NO ".....	1.18	2.49	3.28	4.30
SCL Cable Connector.....	.23	.26		
SLP Short Elbow.....	1.23	2.66		
KOL Box Connector.....	2.07	4.30		
KOR Reducer.....				

...

	3/4"	3/4"	1"	1 1/4"
Blank Metal.....	\$.12	\$.16	\$.32	\$.43
Rubber Gasket.....	.14	.14	.22	.28
Metal, 3/4 Nip.....	.28	.35	.49	.63
" 3/4 ".....	.35	.40	.54	.69
" 3/4 ".....	.42	.43	.56	.73
" 3/4 ".....	.49	.50	.63	.76
Porcelain with Holes.....	.14	.21	.35	.50
Metal, Cord Grip.....	.28	.35	.49	
	1 1/4"	2"	2 1/4"	3"
Blank Metal.....	\$.63	\$.79	\$1.05	\$1.05
Rubber Gasket.....	.28	.56	.84	.84
Metal, 3/4 Nip.....	.82			
" 3/4 ".....	.86			
" 3/4 ".....	.88			
" 3/4 ".....	.90			
Porcelain with Holes.....	.68	.84	1.12	1.12
Metal, Cord Grip.....				

0.00

			1½"	¾"	1"
Lamp Recept.	without Shade Holder Groove PRS....	\$.35	\$.42	\$.48	
"	with Shade Holder Groove PRS.....	.42	.49		
Porcelain for Weatherproof Socket S.P.S.....		.26			
Polarity Plug Receptacle 10 Amp. P.....		.56	.63		
" " " Duplex PD.....			.70	.75	
<hr/>					
Snap Switch	5 Amp. 125 Volt Non Indicating....	* \$.70	Sgle. Pole	Dble. Pole	3 Pole
" "	" " 125 " " .....	.77			
" "	" " 125 " " Non-Indicating.....	1.22	\$1.27		1.47
" "	" " 10 " 125 " Indicating.....	.76	1.68		

2.9.

Type]	Any Make					
	1 Gang			2 Gang		
	1/2"	3/4"	1"	1/2"	3/4"	1"
FSE-FSB.....	\$1.05	\$1.26	\$1.40	\$1.82	\$2.03	\$2.24
FSC-L & R.....	1.33	1.61	2.03	2.10	2.31	2.60
FST.....	1.75	2.31	2.73	.....	.....	.....
FSU.....	1.26	1.61	2.03	.....	.....	.....
FSD.....	1.75	2.31	2.73	2.38	2.73	3.00

Type	3 Gang			4 Gang		
	1/2"	3/4"	1"	1/2"	3/4"	1"
FSE-FSB.....	\$2.73	\$3.01	.....	\$3.36	\$3.64
FSC-L & R.....	3.08	3.36	.....	3.71	3.99
FST.....
FSU.....
FSD.....	\$3.22	3.57	3.85	\$4.27	.....	.....

081111Z

	One Gang	2 Gang
Blank Metal Plate.....	\$.37	\$.70
Receptacle Plate.....	.28	.38
Toggle or Push Button Switch Plate.....	.38	..

2004

Type	5 Amp.		10 Amp.		
	$\frac{1}{4}''$	$\frac{3}{4}''$	$\frac{1}{4}''$	$\frac{3}{4}''$	1"
OA	\$.63	\$.64	\$.77	\$1.05	\$1.33
OC	.77	1.05	.91	1.26	1.68
OCB	1.19	1.54	1.33	1.75	2.24
OEB	.56	.77	.70	.98	1.26
OEB.	.91	1.12	1.05	1.33	1.75
OL	.91	1.12	1.05	1.33	1.75
OLB	1.19	1.54	1.33	1.75	2.24
OT	1.19	1.54	1.33	1.75	2.24
OTB	1.54	1.96	1.68	2.10	2.80
OU	.91	.77	.91	1.26	1.68
OUE	1.19	1.54	1.33	1.75	2.24
OX	1.54	1.96	1.68	2.10	2.80
OXB.	1.89	2.31	2.03	2.52	3.30

FITTINGS, ENTRANCE

"ADAPTT"				
Ent. Ells with Cov. Ser. 1100.....	14 ⁰⁰	14 ⁰⁰	1 ⁰⁰	14 ⁰⁰
Fitt. with Cov. Ser. 2700.....	\$.45	\$.50	\$.60	\$1.05
Angle Ent. Fitt. with Cov. Ser. 2700... ..	.45	.55	.65	1.15
Signal Ent. Caps No. 2810-2811.....	.50	.55	.65	1.20
	14 ⁰⁰	14 ⁰⁵	2 ²⁴	3 ⁰⁰
Ent. Ells with Cov. Ser. 1100.....	\$1.50	\$3.00		
Fitt. with Cov. Ser. 2700.....	1.00	3.00	\$5.25	\$7.65
Angle Ent. Fitt. with Cov. Ser. 2700.....	2.00	3.10	6.30	7.50
Signal Ent. Caps No. 2810-2811.....				

“APPLETON”

	16"	36"	1"	14"
FEB Elbow with Cov. 1700 & 1900.....	\$.50	\$.60	\$.70	\$1.70
FB Elbow with Cov. 1713 to 16.....	.35	.60	.60	
PC End Fitt. with Cov. 1723-33-43.....	.20	.25	.30	
AY Angle Fitt. 1950 to 54.....	.55	.60	.70	1.95
LAY End Fitt. with Cov. 1790 to 94.....	.55	.60	.75	1.35
	16"	2"	34"	
FEB Elbow with Cov. 1700 & 1900.....	\$1.90	\$3.25	\$7.50	\$9.00
FB Elbow with Cov. 1713 to 16.....				
PC End Fitt. with Cov. 1723-33-43.....				
AY Angle Fitt. 1950 to 54.....				
LAY End Fitt. with Cov. 1790 to 94.....				
	2"			
	1.75			

"BEND HICKS"

	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{2}$ "
Bend Hicks Galvanized.....	\$.50	\$.60	\$.65	\$1.75
	$1\frac{1}{4}$ "	2"	$2\frac{3}{4}$ "	3"
Bend Hicks Galvanized.....	\$2.15	\$4.10	\$6.00	\$8.25

"CONDULETS"

Form 6

F Type Ent. Fitt. with Porc. Cov.....	16'	14'	1'	14'
	\$4.40	\$4.45	\$6.00	\$9.95
LB Type Ent. Fitt. with Metal Cov.....	.45	.50	.60	1.15
F Type Ent. Fitt. with Porc. Cov.....	14'	2'	24'	3'
	\$1.60	\$2.85	.....	.....
LB Type Ent. Fitt. with Metal Cov.....	1.40	2.45	.....	.....

"ELECTROLETS"

	1½"	¾"	1"	1¼"
FB Angle Fitt. with Cov. 713-83.....	\$.45	\$.55	\$.70	\$1.10
KA End Fitt. with Cov. 1013 to 43.....	.20	.20	.25	.30
KB Elbow Fitt. with Cov. 1113 to 33.....	.30	.30	.60	.....
SLB Elbow Fitt. with Cov. 1 to 4.....	.50	.60	.75	1.35
Y Capped Elbow Y1 to 5.....	.50	.60	.65	1.75
	1½"	2"	2½"	3"
FB Angle Fitt. with Cov. 713-83.....	\$1.80	\$3.00	\$7.00	\$5.50
KA End Fitt. with Cov. 1013 to 43.....	.....	.....	.....	.....
KB Elbow Fitt. with Cov. 1113 to 33.....	.....	.....	.....	.....
SLB Elbow Fitt. with Cov. 1 to 4.....	.....	.....	.....	.....
Y Capped Elbow Y1 to 5.....	2.15	.....	.....	.....

"GENERAL ELECTRIC"

With Covers					
Ent. Caps Series	1525 to 1532	\$.40	\$.45	\$.60	\$.95
Capped Elbow Series	1470 to 1472	.45	.50	.60	.....
Capped Elbow Series	1480 to 1484	.50	.55	.65	1.80
Insulets Series	1610 to 1612	.15	.20	.25	.....
Insulets Angle Series	1640 to 1642	.30	.45	.60	.....
Entrance Ells	1490 to 1495	.45	.50	.60	1.15
With Covers					
Ent. Caps Series	1525 to 1532	\$1.60	\$2.75	.....	.....
Capped Elbow Series	1470 to 1472	.....	.....	.....	.....
Capped Elbow Series	1480 to 1484	2.10	.....	.....	.....
Insulets Series	1610 to 1612	.....	.....	.....	.....
Insulets Angle Series	1640 to 1642	.....	.....	.....	.....
Entrance Ells	1490 to 1495	1.50	3.00	.....	.....

GEE-VEE

F Service Cap Series 6000.....	3/8"	3/4"	1"	
B 16000.....	.45	.50	.70	\$1.00
F Pipe 10000-1310.....	.40	.50	.75	.85
A 2000-2100.....	.40	.50	.75	.85
FB Universal 3000.....	1.00	1.25	1.65	2.75
Weathercap 40122.....	.55	.55	.....	.....
Service Elbow 19000.....	.40	.55	.65	1.00
A Terminal 10000.....	.40	.55	.65	1.05
Endo Terminal Series 90000.....	15	20	25	

	1½"	2"	2½"	3"
F Service Cap Series 6000.....	\$1.90	\$3.35	\$7.60	\$9.25
B " " " 16000.....	1.90	3.35	7.60	9.25
F Pipe " " 1000-1310.....	1.20	1.75	3.00	4.15
B " " " 2000 & 2100.....	1.05			
FB Universal " " 3000.....	3.75	6.40	9.50	12.70
Weathercap " " 40122.....				
Service Elbow " " 19000.....	2.75	3.55		
A Terminal " " 10000.....	1.40	2.40	4.55	7.40
End Terminal " " 90000.....				

Fittings, Entrance

Ent. Cap. 1925-32 with Cover.....	1½"	1½"	1½"	1½"
Capped Elbow 1470-84 with Cover.....	\$.40	\$.45	\$.65	\$1.00
Insulets 1610-11-12 with Cover.....	\$.50	.60	.70	1.95
Insulets 1610-11-12 with Cover.....	.15	.20	.25
Angle Insulets 1640-1-2 with Cover.....	.30	.45	.60
Cable Insulets 2000 with Cover.....	.15
Ent. Cap. 1925-32 with Cover.....	1½"	2"	2½"	3"
Capped Elbow 1470-84 with Cover.....	\$1.70	\$2.95	\$6.25	\$7.65
Insulets 1610-11-12 with Cover.....	2.30
Insulets 1610-11-12 with Cover.....
Angle Insulets 1640-1-2 with Cover.....
Cable Insulets 2000 with Cover.....

ROUND "ADAPTI" BOXES

Series Numbers	Style	1½"	1¾"	1"
No. 2900 to 2903	1 Back Outlet	\$.40	\$.48	\$.60
No. 3000 to 3005	1 Side Outlet	.43	.50	.74
No. 3100 to 3105	" " "	.40	.48	.60
No. 3100T & 3101T Thrls.	" " "	.48	.55	.....
No. 3170 to 3175	" " "	.47	.54	.67
No. 3200 to 3205	2 " " "	.48	.54	.74
No. 3200T & 3201T Thrls.	" " "	.60	.68	.....
No. 3270 to 3275	" " "	.60	.67	.94
No. 32170 to 32175	" " "	.54	.60	1.00
No. 3300 to 3305	3 " " "	.64	.88	.98
No. 3300T to 3305T Thrls.	" " "	.82	.95	.....
No. 33170 to 33175	" " "	.71	1.07	1.07
No. 3400 to 3405	4 " " "	.80	1.05	1.20
No. 3500 to 3705	2 " " "	.54	.60	.75
No. 3800 to 3805	" " "	.54	.60	.80
No. 3900 to 4105	3 " " "	.80	.93	1.08
No. 4800 to 5005	4 " " "	.94	1.03	1.34

Series Numbers	Style	1¾"	1½"	2"
No. 2900 to 2903	1 Back Outlet	\$1.10	.....	.....
No. 3000 to 3005	1 Side Outlet	1.30	\$2.00	\$2.70
No. 3100 to 3105	" " "	1.10	1.80	2.40
No. 3100T & 3101T Thrls.	" " "	.....	.....	.....
No. 3170 to 3175	" " "	1.15	1.85	2.46
No. 3200 & 3205	2 " " "	1.25	2.13	2.70
No. 3200T & 3201T Thrls.	" " "	.....	.....	.....
No. 3270 to 3275	" " "	1.40	2.28	2.88
No. 32170 to 32175	" " "	1.34	2.20	2.80
No. 3300 to 3305	3 " " "	1.96	2.68	3.00
No. 3300T to 3305T Thrls.	" " "	.....	.....	.....
No. 33170 to 33175	" " "	1.70	2.70	3.15
No. 3400 to 3405	4 " " "	1.87	2.90	3.35
No. 3500 to 3705	2 " " "	1.40	2.28	3.35
No. 3800 to 3805	" " "	1.40	2.28	3.35
No. 3900 to 4105	3 " " "	1.85	2.90	4.00
No. 4800 to 5005	4 " " "	1.95	3.55	4.70

Series No.	Description	1/4"	3/4"	1"
500-501-502	Base Only	\$.27	\$.27	\$.54
500X-501X	Extension Ring	.27	.27	.40
501A	Base Concealed to Expd.	.67	.67	.67
0500	" with Tapped Boss	.34	.34
510 to 512	Base	.40	.40	.80
520 to 522	"	.27	.27	.52
530	"	1.80	1.80
540 to 542	"	.27	.27	.52
30 to 35	Metal Side Plates	.14	.14	.20
40 to 42	Insulated Side Plates	.16	.16	.34
50 to 54	Arm'd. Flex. Side Plates	.34	.43	.52
60 to 65	Angle Outlet	.16	.24	.43
70 to 75	Elbow Outlet	.24	.30	.50
90 to 92	Connecting Outlet	.2834
100 & 101	Straight for No. 500 Base	.16	.24
110 to 113	" " No. 501 "	.28	.34	.43
120 to 125	" " No. 502 "	.47	.53	.67
130 to 135	" " No. 503 "	1.08	1.32	1.60
140 to 145	" " No. 504 "	2.67	3.08	3.48
300 & 301	Threadless Outlet	.20
310 & 311	"	.34	.40
Series No.	Description	1 1/4"	1 3/4"	2"
500-501-502	Base Only	\$.54	\$1.08	\$1.08
500X-501X	Extension Ring	.40
501A	Base Concealed to Expd.	.67
0500	" with Tapped Boss
510 to 512	Base	.80	1.60	1.60
520 to 522	"	.52	1.08	1.08
530	"
540 to 542	"	.52	1.08	1.08
30 to 35	Metal Side Plates	.20	.38	.38
40 to 42	Insulated Side Plates	.34	.67	.67
50 to 54	Arm'd. Flex. Side Plates	.67
60 to 65	Angle Outlet94	1.08
70 to 75	Elbow Outlet	.55	1.08	1.14
90 to 92	Connecting Outlet47
100 & 101	Straight for No. 500 Base
110 to 113	" " No. 501 "	.48
120 to 125	" " No. 502 "	.80	.94	1.07
130 to 135	" " No. 503 "	1.53	2.14	2.40
140 to 145	" " No. 504 "	3.57	4.28	4.67
300 & 301	Threadless Outlet
310 & 311	"

Numbers	Description	Price
1	Porcelain One Hole Cover.....	\$.18
2	Metal For Devices.....	.30
3	Porcelain One Hole Cover.....	.30
4	Porcelain.....	.22
5 & 6	Porcelain with Male or Female Nipple.....	.38
7 & 8	" " " " " "	.30
9 & 10	" " " " " "	.30
11 & 12	Malleable with Male or Female Nipple.....	.38

NOTE: For "Adapti" Entrance Fittings See Page PL-13.

**Crouse Hinds—Appleton & Similar
Type GCA**

Without Soldering Lug		Price
Fitting No.	GCA-12 For 1/2" Conduit.....	\$.77
" " " " -172 " "	" " " " with lug .....	.81

With Angle Adjustment		Price
GCD-12 For $\frac{3}{4}$ "	Conduit without Lug with one Strap.....	\$.90
GCD-172 For $\frac{3}{4}$ "	Conduit with Lug with one Strap.....	.95
GCD-22 For $\frac{3}{4}$ "	Conduit with Lug with two Straps.....	1.77
GCD-32 For $\frac{3}{4}$ "	Conduit with Lug with three Straps.....	2.61

Size of Conduit Outside Diameter of Water Pipe Number.....	With Strap Clamp Terminal									
	$\frac{1}{2}$ " to $2\frac{3}{4}$ "	$\frac{1}{2}$ " to $4\frac{1}{2}$ "	$\frac{1}{2}$ " to $6\frac{1}{2}$ "	$\frac{1}{2}$ " to $2\frac{3}{4}$ "	$\frac{1}{2}$ " to $4\frac{1}{2}$ "	$\frac{1}{2}$ " to $6\frac{1}{2}$ "	$\frac{1}{2}$ " to $2\frac{3}{4}$ "	$\frac{1}{2}$ " to $4\frac{1}{2}$ "	$\frac{1}{2}$ " to $6\frac{1}{2}$ "	$\frac{1}{2}$ " to $6\frac{1}{2}$ "
Price.....	\$1.58	\$1.80	\$2.16	\$2.97	\$3.42	\$4.14	\$4.14	\$4.41	\$5.00	\$6.17

GCE-142 For 1/2" Conduit without Lug.....	\$.90
GCE-242 " 1/2" " with Lug.....	1.04
GCE-342 " 1/2" " with Lug.....	1.17

GC-92	Cast Brass with No. 4 Lug	\$.72
GC-922	" " " " 00 Lug	1.44

Size	1/4"	3/8"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Without Cap Screw...	\$.10	\$.13	\$.20	\$.24	\$.31	\$.46	\$.84	\$1.10
With Cap Screw.....	.20	.24	.31	.32	.40	.61	1.00	1.25

[illegible]

For BX or Armored Cable		Size of	Price
Description		K. O.	Each
Standard Squeeze Connector	3/4-1 1/2	1/2"	.06
Set Screw Connector	3/4-1 1/2	1/2"	.06
" Slip In Connector	3/4-1 1/2	1/2"	.06
" Duplex Connector	3/4-1 1/2	1/2"	.18

STRAIGHT BOX CONNECTORS		1/2"	.18
	Squeeze	1/2"	.18
	or	1/2"	.30
	Tangent	1/2"	.30
	Type	1/2"	.45
		1/2"	.85
		1/2"	1.25
		1/2"	
90 DEGREE ANGLE BOX CONNECTOR		1/2"	.32
	Squeeze	1/2"	.40
	or	1/2"	.75
	Tangent	1/2"	1.00
	Type	1/2"	1.25
		1/2"	
		1/2"	
		1/2"	
45 DEGREE ANGLE BOX CONNECTOR		1/2"	.32
	Squeeze	1/2"	.40
	or	1/2"	.75
	Tangent	1/2"	1.00
	Type	1/2"	1.25
		1/2"	
		1/2"	
		1/2"	
PANEL BOX CONNECTOR		1/2"	.35
	Straight	1/2"	.48
	Type	1/2"	.63
	With	1/2"	.93
	Locknut	1/2"	1.30
		1/2"	1.88
		1/2"	2.58
		1/2"	
COUPLINGS FOR FLEXIBLE STEEL CONDUIT	For 1/2"	1/2"	.36
	" 3/4"	"	.88
	" 1"	"	.42
	" 1 1/4"	"	.64
	" 1 1/2"	"	.65
	" 2"	"	.90
		1 1/2"	1.10
		2"	1.60

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Fittings, Armored Cable

FITTINGS OR BOX CONNECTORS, ARMORED CABLE—Continued

COUPLINGS FOR RIGID TO FLEXIBLE CONDUIT	For 1/2" Conduit	.32
Bushings or Ferrules—Brass		.02

FITTINGS FOR "OVALFLEX" ARMORED CABLE

Number	Description	Price
2150-67-60-61	Straps—Fasteners & Bushings	\$.02
2150	Toggle with Wire Loop	.03
2176-2180-2154	Set Screw Connector	.15
2179-2181	Special Box Connector	.10
2155-2156	90 Degree Box Connector	.35
412-413	Connector for Ovalflex to Metal Molding	.35
9050-8	Squeeze Connector	.10

HANGERS

FOR CABLE & CONDUIT Mineralac

Hangers			Material			Porcelain Bushings		
Mfgs. No.	Conduit Size	Lead Covered Cable Size	Price	Mfgs. No.	For RC Cable	Price		
0	1/2"	No. 14	\$.07	1	8-2-0	\$.10		
1	3/4"	No. 1 to 4, 0	.08	.11	2	3-0-4-0	.12	
2	1"	4/0 to 300 M	.10	.12	3	250M-450M	.13	
3	1 1/4"	500 to 750 M	.10	.12	4	500M-700M	.15	
4	1 1/2"	800 to 1125M	.14	.15	5	750M-1000M	.17	
5	2"	1500 M	.14	.16	6	1125-2500M	.24	
6	2 1/2"	2000 M	.16	.18				

ADJUSTABLE BEAM HANGERS T & B or Similar

Type A Clamp Including Bolts Fits Flange 2 1/4 to 7 3/4"	Price Each
Type B & C Clamp Including Bolts Fits Flange 7 to 12"	.75
Special Bolts	.10

Supports for above Hangers

For One Conduit Steel	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
" Two Conduit Mall.	.20	.25	.33	.40	.50	.51	.65	.82
" Four Conduit Mall.	.31	.36						

NOTE: For Price of Complete Hanger add Prices of Clamp & Supports.

HANGERS & PERFORATED BAR Grabber

For 1/2 to 1 1/2 Conduit Per Foot	\$.05
" 2 to 3 " " "	.06
" 3 1/2 to 6 " " "	.08

Hangers

No.	Description	1/2"	3/4"	1"	1 1/4"
1	Hinge Hanger with Extn. Bar & Lag Screw	\$.17	\$.17	\$.18	\$.20
7	Band Hanger Extn. Bar and Beam Clamp	.20	.20	.21	.24
13	Hinge Hanger, Socket and Beam Clamp	.32	.32	.35	.36
200	Band Hanger Only	.09	.09	.10	.11

No.	Description	1 1/4"	2"	2 1/2"	3"
1	Hinge Hanger with Extn. Bar & Lag Screw	\$.23	\$.25	\$.26	\$.31
7	Band Hanger Extn. Bar and Beam Clamp	.25	.28	.30	.31
13	Hinge Hanger, Socket and Beam Clamp	.37	.44	.45	.46
200	Band Hanger Only	.12	.14	.16	.17

Lag Screws—Beam Clamps & Beam Plates

No.	Description	Each	2" to 3"	Each
19	Flattened Lag Screw with Bolt—1/4" to 1 1/4"	\$.06	2" to 3"	\$.07
20	Threaded Lag Screw, no Bolt—1/4" to 1 1/4"	.06	2" to 3"	.07
21	Beam Plate with Bolt—1/4" to 1 1/4"	.05	2" to 3"	.06
22	Beam Clamp—Forged—with Bolt 1/4" to 1 1/4"	.16	2" to 3"	.20

KNOBS, TUBES & CLEATS, PORCELAIN

KNOBS

Type	Price Each	Without Screws
No. 514 Split Knobs	\$.02 1/4	\$.02
514 Nailit	.03	.02 1/4
514 Screwit	.03 1/4	
4 & 4 1/4 Knobs Solid	.04	.03 1/4
No. 9419 Split 1 1/2 x 1 1/2		.07
9420 Split 2 x 2 1/2		.12
22 Victor Split		.10
6061 Solid Teleph. 4 Groove		.07
6063		.10

TUBES

		Length								
Diam.		3' & under	4'	5'	6'	8'	10'	12'	14'	16'
	Price Each	\$.01½	\$.02	\$.02½	\$.03	\$.10	\$.17	\$.25	\$.32	\$.40
1/4"	"	.02	.02½	.03	.04	.11	.19	.27	.35	.43
3/8"	"	.04	.05	.06	.07	.13	.21	.30	.38	.47
1/2"	"	.07	.08	.09	.11	.15	.25	.34	.43	.52
3/4"	"	.10	.12	.13	.15	.18	.29	.39	.49	.59

CLEATS

2 & 3 Wire

Standard No. 334 2 & 3 Wire Unglazed Cleats without Screws Per Pair \$.04
Glazed .06

ONE WIRE CLEATS B & D Type—2 Piece

Old No.	Dimensions Height	Length	Width	For Size Wire	Price Each
1A	1 1/4"	1 1/4"	1 1/4"	14 to 6	\$.06
1 1/2 A	1 1/2"	1 1/2"	1 1/2"	6 " 2	.07
2A	2"	2"	2"	2 " 0	.11
2 1/2 A	2 1/2"	2 1/2"	2 1/2"	0 " 000	.15
3A	3"	3"	3"	000 " 200,000 CM	.17
3B	3"	3"	3"	000 " 200,000 CM	.18
3 1/2 B	3 1/2"	3 1/2"	3 1/2"	2 " 500,000 CM	.20
4B	4"	4"	4"	5 " 1,000,000 CM	.25
4 1/2 B	4 1/2"	4 1/2"	4 1/2"	8 " 1,250,000 CM	.35

LOOM & L-SUNDRIES

LOOM, NON-METALLIC CONDUIT

Size	Price per Foot
7/8"	\$.02 1/4
1"	\$.02 1/2
1 1/4"	\$.03
1 1/2"	\$.12
1 3/4"	\$.15
2"	\$.17
2 1/2"	\$.22

SOLDERING LUGS—One Hole Sherman-Trumbull or similar

For Wire Size	Amps.	Size Wire Hole	Price Each
No. 10 Under	25	1/8"	\$.04
8	35	3/16"	.04
6	50	1/4"	.05
4	70	5/16"	.06
2	90	3/8"	.08
0	125	1/2"	.09
00	150	5/8"	.12
000	175	3/4"	.18
0000	225	7/8"	.21
250 M. C. M.	237	1"	.33
400 M. C. M.	325	1 1/8"	.50
450 M. C. M.	362	1 1/4"	.70
500 M. C. M.	400	1 1/2"	.75
600 M. C. M.	450	1 3/4"	.76
800 M. C. M.	550	1 7/8"	.96
1000 M. C. M.	650	2"	1.17

With Regular Stud Holes Add 50% To Above Prices.

CONDUIT LOCKNUTS

Size	Price
1/2"	\$.01
3/4"	.01 1/4
1"	.02 1/4
1 1/4"	.05 1/4
1 1/2"	.09
2"	.11
2 1/2"	.19
3"	.32
3 1/2"	.40
4"	.58

LINKS

For Chain

Non-Insulating Splicing Links—Any Make—Each	Price
insulating	\$.05
Luminous Acorns—See Page PL-4 and Page PL-18.	.15

MAIL BOXES

COUCH

No. 73 Tilting Mail Boxes Post Office approved per Receiptable. \$4.15

"TILTING" Speaking Tube Type

No. of Boxes	2	4	5	6	7	8	9	10	11	12
Price ea.	16.20	21.60	27.00	32.30	37.80	43.20	48.60	54.00	59.40	64.80

SINGLE GANG Non-Tilting

No. 78 or 780 with call button or speaking tube unit. Price each \$3.15


MOLDING, NATIONAL


MOLDING

No. 022 & 222 Molding For Two Wires—Per Foot. \$.10
" 033 & 044 " Two to Four Wires—Per Foot. .11

FITTINGS

No.	Description	Price Each	No.	Description	Price Each
200-301	Bushing	\$.01	348	Cord Rosette	\$.32
223	Clip	.02	354	Double Strap	.02
232	Coupling	.04	355	Ground Clamp	.05
234	Cross	.43	356-7	Keyless Socket	.65
235	Tee	.24	360	Conven. Outlet	.75
236	90 Deg. Elbow	.20	363	4 1/2" Plate	.35
237	45 " "	.20	363A	4 1/2" Cover	.24
238-9	90 " "	.20	363B	4 1/2" "	.28
245	Single Strap	.02	363C	Yoke	.06
255	Ground Clamp	.04	365&A	4 1/2" Base	.60
278	Adaptor	.05	365B	4 1/2" Cover	.30
300	Connector	.08	365C	4 1/2" Plate	.32
301	Box Connector	.15	366	6" Canopy Base	.85
303	Adaptor	.04	366A-B-C	6" Covers	.50
315	Connector	.24	370	Blank Cover	.25
316	90 Deg. Coupling	.30	371-2-3	Porcelain Cover	.25
317	90 " "	.30	374	Corner Box	.45
321A & B	Rawl Plug	.04	377	Adaptor	.10
323	Joint Cap	.02	392	Snap Switch	.85
332	Coupling & Supp.	.05	396	Pull Socket	1.15
334	Cross	.45	397	Key " 2 1/2" Base	.75
335	Tee	.24	398	" " " "	.80
336	90 Deg. Elbow	.22	399	Keyless Sock. 2" Base	.50
337	90 " Ext. Elbow	.20	400	Base for Socket	.50
337B	Cap for Elbow	.10	401	Box Connector	.15
338	90 Deg Int. Elbow	.22	406	Combinat. Fitting	.30
338B	Cap for Int. Elbow	.12	407	Utility Box	.40
339	Drop Cord Box	.37	412	Connector	.34
341	Junction Box	.40	413	" " "	.28
342	Surface Box	.40	414-S	" " "	.24
344	Base Coupling	.01	419A&B	Toggle Box	.09
345	Single Strap	.02	419C	" " "	.10





a new
opportunity
for you with
non-metallic
sheathed
cable

NON-METALLIC

it can ^{and should} now be used in small stores and offices -

The 1928 Code Rules specify:

"Cable containing an auxiliary grounding wire may be used for the wiring of any circuit, except service entrance, in residence buildings having wood joist, wood stud, or wood furred walls, floors, or partitions, or for the wiring of office or mercantile occupancies in residence neighborhoods which do

not require more than four branch circuits, unless otherwise provided for by other articles of this code."

With that revision a new market is open for Non-Metallic Sheathed Cable. Not only may it be used for the wiring of houses and small apartment buildings, but also for small stores and office buildings in most residential localities.

This is additional Non-Metallic Sheathed Cable business for you. Go out and get it. And, if you want further details on installation, write to any of the Licensed Manufacturers listed below for a copy of the booklet— "Where and How to Use Non-Metallic Sheathed Cable."

American Circular Loom Company
Anaconda Wire and Cable Company
Collyer Insulated Wire Company
Eastern Tube and Tool Company
General Electric Company
Marion Insulated Wire and Rubber Company
National Metal Molding Division
National Electric Products Corporation
Rome Wire Company
Division of General Cable Corporation
The Wiremold Company
Triangle Conduit Company, Inc.

The above Manufacturers are Licensed under Non-metallic Sheathed Cable Patents number 1439323; 1520680; 1203788; 1673752.

SHEATHED CABLE



Prest-O-Lite Is The Modern Blow-Torch

... Instantly ready, simply turn on the gas and light it . . . no lost motion . . . operates unfailingly and efficiently in any kind of weather, inside or out of doors . . . Moderate initial cost and economical—wastes no fuel between jobs—lasts indefinitely.

Prest-O-Lite torches fit every blow-torch need—do every heating, brazing or soldering job quicker, easier, better and at lower cost.

'Phone the Prest-O-Lite Gas Distributor about this equipment or write us direct for complete information.



Prest-O-Lite is available everywhere. Anyone of 15,000 Prest-O-Lite Exchange Stations can supply you quickly with a full tank.

**Prest-O-Lite
GAS**

THE PREST-O-LITE COMPANY, Inc.

Unit of Union Carbide and Carbon Corporation

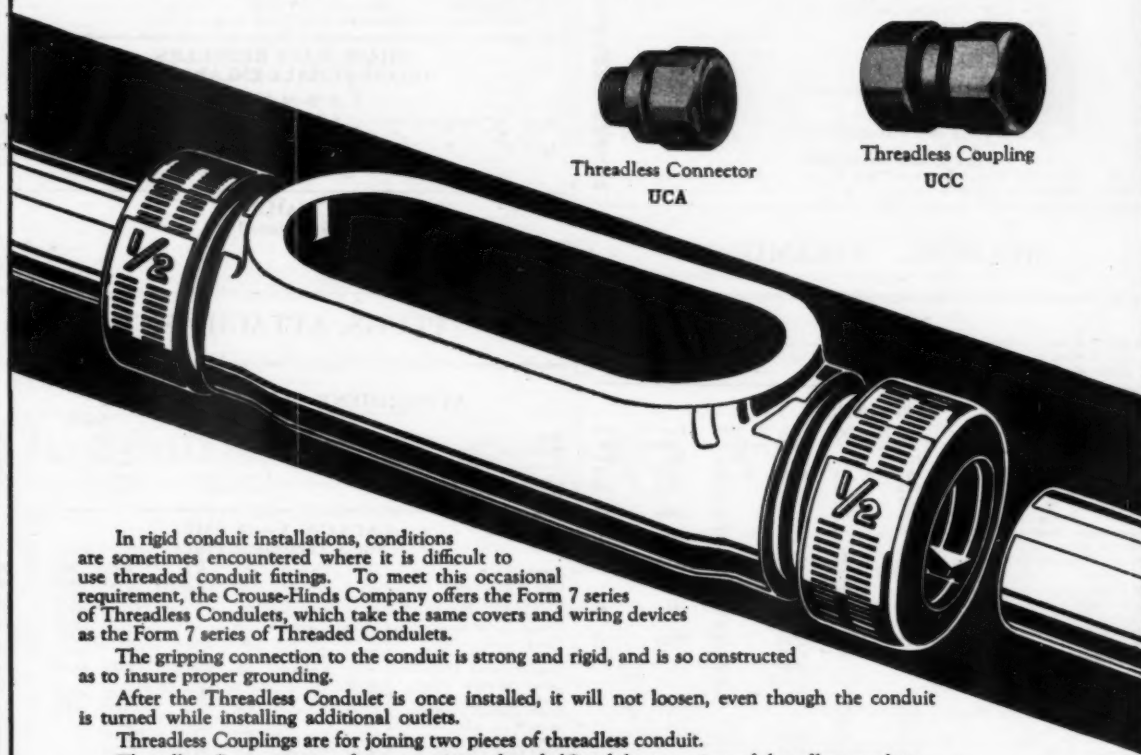


NEW YORK, N. Y.
Carbide and Carbon Building

SAN FRANCISCO, CAL.
Adam Grant Building

IN CANADA: The Prest-O-Lite Company of Canada, Ltd., Toronto

THREADLESS CONDULETS COUPLINGS and CONNECTORS



In rigid conduit installations, conditions are sometimes encountered where it is difficult to use threaded conduit fittings. To meet this occasional requirement, the Crouse-Hinds Company offers the Form 7 series of Threadless Condulets, which take the same covers and wiring devices as the Form 7 series of Threaded Condulets.

The gripping connection to the conduit is strong and rigid, and is so constructed as to insure proper grounding.

After the Threadless Condulet is once installed, it will not loosen, even though the conduit is turned while installing additional outlets.

Threadless Couplings are for joining two pieces of threadless conduit.

Threadless Connectors are for connecting a threaded Condulet to a piece of threadless conduit.

Threadless Connectors, when equipped with lock nut, are for connecting threadless conduit to an outlet box, switch box, or panelboard cabinet.

Bulletin 2126 will be sent upon request.

CROUSE-HINDS COMPANY

ESTABLISHED 1887
SYRACUSE, N. Y., U. S. A.
SALES OFFICES



NEW YORK
PHILADELPHIA
PITTSBURGH

DETROIT
CINCINNATI

BOSTON
CLEVELAND
ATLANTA

ST. LOUIS
SAN FRANCISCO

CHICAGO
MINNEAPOLIS
MILWAUKEE



CROUSE-HINDS

CONDULETS - GROUNDULETS - PLUGS and RECEPTACLES - FLOODLIGHTS - TRAFFIC SIGNALS
AIRPORT and AIRWAY LIGHTING EQUIPMENT - PANELBOARDS and CABINETS - SWITCHES

CH457

PL-16

Molding

FITTINGS—Continued			
No.	Description	Price Each	No. Description Price Each
420A&B	Spring Toggle Bolt	.09	Single Plates 447-48-50- .13
420C	Lead Shield	.09	Two Gang Plates 452-52-92- .25
421	Folding Strap	.02	Three " 453-53-93- .40
426	Susp. Strap 2 Line	.04	
427	" 3 "	.05	441 Single Adaptor .60
428A	Folding Strap	.03	442 Two Gang " 1.00
430	Fixture Rosette	.60	500 Bushing .03
434	Single Strap	.06	513 3 Gang Adaptor 1.50
435	Double Strap	.08	514 4 " 2.00
436	Coupling	.06	515 5 " 2.50
437	45 Deg. Elbow	.20	516 6 " 2.95
438	Sgle. Flush Box	.80	523 3 " Surface Box 1.50
439	" Surface Box	.70	524 4 " 2.00
439S	" " "	.75	525 5 " 2.50
440	Two Gang Surface Box	1.00	526 6 " 2.95
			2155 90 Deg. Connect .35
			2156 90 " .35

OVALDUCT

3 Wire.....Per Foot \$ 18

OVALDUCT FITTINGS

No.	Description	Price Each
401	Box Connector with 1/2" Locknut	.15
2133	Squeeze Type Coupling 1 1/4" long	.15
2134	90 Degree Internal Elbow	.35
2135	45 " Flat	.27
2156	90 " Box Connector	.34
2159	Wire Toggle Fastener	.03
2161	Strap Fastener	.02
2181	Connector Ovalduct to Oval Knockout	.10
2662	Outlet Box 4 x 1/2	.21
2663	Extension Ring for Boxes	.20
2665	Outlet Box 4 x 1/2 with Fixture Stud	.28
2662	" 3 1/4 x 1/2	.20
2665	" 3 1/4 x 1/2 with Fixture Stud	.27
4170-S1	Sectional Switch Box 4 x 1 1/2 x 1	.35
4172-S1	Spacer for above box	.34

MOLDING, WIREMOLD

MOLDING		
No. 500 2-Wire,	price per ft.	\$.10
" 700 4-Wire,	" " "	.12
" 1000 Master Size,	" " "	.25

FITTINGS

For No. 500		For No. 700		For No. 1000	
No.	Price	No.	Price	No.	Price
Coupling	.501 .04	5701 .04	1001 .06		
Bushing	.502 .04	702 .04	1002 .04		
Supporting Clip	.503 .06	5703 .06			
" Strap	.504 .04	704 .06	1003 .08		
Connecting Cover	.506 .04	706 .04			
Multiple Strap		.5707 .10			
Ground Coupling or Clamp		.5709 .12	1006 .20		
Flat Elbow	.511-12 .22	5711-12 .22	1011 .45		
Tee Plain	.515 .36	5715 .36			
Cross Plain	.516 .37				
Internal Elbow	.517 .26	5717 .26	1017 .45		
Elbow Pull Box		.5717A .50			
External Elbow	.518 .22	5718 .22	1018 .40		
Corner Box	.519 .37	5719 .45			
Narrow Fitting		.5720 .55			
Show Case Fitting		.5720A .45			
One Piece Rosette	.521 .36	5721 .36			
Two Piece Rosette and Block	.522 .60				
Fixture Rosette, 1/2"	.523 .70				
" 3/4"	.524 .65	5724 .65			
Receptacle Base	.525 .70	5725 .70			
Keyless Receptacle	.526 .90	5726 .90			
Attachment Plug	.527 1.00	5727 1.00			
Utility Box		.5728-29 .36			
Contact Block	.30	5730 .30			
Blank Cover	.531 .14	5731 .14			
Outlet Box, 2 1/2" or 3"	.532-33 .45	5732-33 .45			
Closed Extension Box		.5734 .65			
Distribution Box		.5735 .70	1035 1.05		
Blank Cover	.536 .16	5736 .16			
Extension or Fixture Box	.537-58 .65	5737-38 .65			
" 6 1/2"		.5739 & A .85			
Combination Box		.5745 .70			
Switch or Recept. Box, Single		.5747 .80			
" " 2 Gang		.5747-2 1.05			
" " 3 Gang		.5747-3 1.15			
Surface Box, Single		.5748-2 1.20			
" " 2 Gang		.5748-3 1.25			
" " 3 Gang		.5748S .70			
Shallow Receptacle Box		.5749 1.00			
Push Switch Box	.540 1.00	5750 1.05			
" " Shallow	.550 1.05	5751 .70			
Adaptor Plate and Cover, Single	.551 1.25	5752 1.25			
" " 2 Gang	.552 1.35	5753 1.35			
" " 3 Gang	.553 1.35	5760 .95			
Blank Extension Box		.5761 & A .34			
Box Connector	.581 .38	5782 & A .38			
Conduit Coupling	.582 .38	5783 .38			
Elbow Box Connector, 1/2" Male	.583 .38	5784 .38			
Conduit Elbow, 1/2" Female	.584 .25	5785 .25			
Combination Connector	.585 .36	5786 .40			
Offset Connector		.5788 .40	1086 .70		
Openwork Coupling	.588 .36	5788 .40			
Kick Plate			1087 .34		

Plugs, Attachment

N-SUNDRIES

PIPE NIPPLES

Made from Galvanized Wrought Iron Pipe		Size of Nipples and Price Each		Size		Size		Size	
Length	Size	Size	Size	Size	Size	Size	Size	Size	Size
Close Nipples	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	
2' to 3 1/2' Long	.10	.10	.10	.12	.15	.21	.28	.35	
2 1/4' to 4' "									
3' to 4 1/4' "									
4' Long	.11	.11	.10	.12	.15	.21	.28	.35	
5' "	.12	.12	.14	.14	.20	.24	.30	.38	
6' "	.14	.15	.15	.17	.22	.28	.34	.40	
7' "	.18	.18	.18	.21	.27	.34	.40	.55	
8' "	.20	.20	.21	.23	.30	.37	.45	.60	
9' "	.21	.21	.22	.25	.33	.40	.50	.67	
10' "	.23	.23	.24	.27	.37	.40	.56	.75	

NOTE RE NIPPLES—Above prices cover nipples made from ordinary Galvanized pipe as used by plumbers. If local rules call for nipples to be made from genuine conduit add the following:
For nipples made from genuine black conduit add 30% to above prices.
For nipples made from genuine Galvanized conduit add 40% to above prices.

CHASE NIPPLES & COUPLINGS

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Chase Nipples, each	\$.10	\$.10	\$.10	\$.14	\$.25	\$.30	\$.32	\$.45
" Couplings	.12	.12	.12	.14				

For Erickson Couplings, see Page PL-8.

CHASE MALE REDUCERS CHASE FEMALE ENLARGERS

T & B or Similar

1/2" to 1/2" Reducer, each	1/2" to 1/2" Enlargers, each	1/2" to 1/2"	1/2" to 1/2"	1/2" to 1/2"	1/2" to 1/2"
1/2" to 1/2"	.25	.25	.25	.25	.25
1/2" to 1/2"	.40	.40	.40	.40	.40
1/2" to 1/2"					

NAILS

Insulated

Millonite Insulated Nails, per dozen	\$.05
Leather Nail Heads	.05
Staples Insulated	.05

PLUGS, ATTACHMENT

ATTACHMENT PLUGS COMPLETE

Style	Cap	Blades	Price
Pony Comp.	Composition	Parallel	\$.15
Standard Comp.	Comp.	Parallel	.20
Genuine Bakelite	Bakelite	Parallel	.35
Large Size	Composition	Tandem	.55
Weatherproof Comp.	One Piece	None	.35

CAPS ONLY—10 AMP.

For Attachment Plugs

Comp. Pony	2 Wire	Parallel	RY	KT	2243	7002	\$.10
Comp. Standard	2 Wire	Parallel	RA	KA-KV	2243	5964	.10
Comp. Polarity	2 Wire	Parallel		MKA	663	6764	.15
Comp. Gen. Bakelite	2 Wire	Parallel				9002	.20
Comp. Large Size	2 Wire	Tandem	TA			5420	.25
Comp. Large Size	2 Wire	Polariz.				6730	.35
Comp. Paraline Conv.	2 Wire	Polariz.				6671	.40
Comp. Heavy Duty	3 Wire	Polariz.	SA	9111	2240	6149	.45
Comp. Disapp. Door	2 Wire			659			.75
Steel Cov. Standard	2 Wire	Parallel	RS	KZ	1582	6827	.15
Brass Cov. Standard	2 Wire	Parallel	RB		662	5965	.45
Brass Cov. Dns. Door	2 Wire				2248		1.00
Cord Grip Comp.	2 Wire	Parallel	RT	JK	2718		.30
Cord Grip Comp.	3 Wire	Polariz.	SH	9112	2723		.65
Cord Grip Steel Cov.	2 Wire	Parallel	SS			7184	.50
Cord Grip Steel Cov.	2 Wire	Polariz.				7241	.75
Knostrain All Comp.	2 Wire	Parallel				6060	.45
Knostrain Brass Base							
Comp. Top	2 Wire	Tandem		KN		5657	.85
Knostrain all Brass Cov.	2 Wire	Tandem				5700	.95
Knostrain all Brass Cov.	2 Wire	Parallel				6061	.95

20 AMPS.

Composition	2 Wire	Polariz.	JA	652	1370	6720	\$.50
Composition	3 Wire	Polariz.	KA		2758	7193	.65
Brass Covered	2 Wire	Polariz.	8242	653		6190	.90
Brass Covered	3 Wire	Polariz.				6053	1.00
Comp. with Cord Grip	2 Wire	Polariz.	IH	623			.75
Comp. with Cord Grip	3 Wire	Polariz.	KH		2750		.95
Steel Cov., Cord Grip	2 Wire	Polariz.				7058	.95
Steel Cov., Cord Grip	3 Wire	Polariz.				7089	1.20

30 AMPS.

Composition	2 Wire	Polariz.	LA		59200		\$.75
Comp. Ext. Heavy	2 Wire	Polariz.				7071	1.45
Porcelain Standard	3 Wire	Polariz.	8286	689	50192		.65
Comp. with Cord Grip	3 Wire	Polariz.	8292	786	13x140		1.65
Steel Cov., Cord Grip	2 Wire	Polariz.				7127	1.80
Steel Cov., Cord Grip	3 Wire	Polariz.				7113	2.15

Flasher Plugs

Diamond Flasher Button	\$.60		
Skeedoodle Plugs No. 125	2.50	No. 161	\$.80
" " No. 164	.60	No. 165	.90

Plugs, Appliance

* Make	Number & Description	Price Each
American Beauty	802-903 Plug Complete for Small Irons.....	\$.60
"	" " " " Large Irons.....	.75
"	" " " " Toasters & Stoves.....	.25
Arrow.....	6510 " " " " with Switch.....	.00
Beaver.....	F1 Gripall Super Type Adjust. Contacts.....	.45
"	" F4 " " Nickel Alloy Contacts.....	.55
"	" F5 " " Armored Case.....	.30
"	" F6 " " Nickel Alloy Cont.....	.60
"	" F7 " " High Grade Bakelite.....	.60
"	" F22 Suizal Double Contacts.....	.20
"	" F31 " Single Contacts.....	.15
"	" F32 " Double Contacts.....	.20
"	" F32 " Armored Case.....	.30
"	" F34 " Small Plug Bakelite.....	.30
"	G-1 Gripall Plug Adjust. Contacts.....	.90
"	G-2 Push Button Type.....	.60
"	G-22 New Toggle Type.....	.45
Bryant.....	668 Plug Complete with Switch.....	.85
"	752 " Shorter than 668.....	.65
Cutler-Hammer.....	7051 Plug Complete with Switch.....	.90
Doyer.....	13 Up Connector Plug for 3½ & 6 lb. Irons.....	.50
"	13 Switch Plug Complete.....	1.00
Hemco.....	250 Heater Plug, no Switch.....	.40
Hemco.....	Appliance Appliance Plug.....	.45
Hotpoint.....	CD6P1 Iron Plug " " Armored.....	.60
"	CD69P1 " " " " "60
"	CD79P1 " " " " with Switch.....	1.00
Hubbell.....	7020 Appliance Switch Plug.....	.90
Kool-Pull (Colts)	Appliance Plug, no Switch.....	1.00
"	" " " " with Switch.....	1.25
Liberty.....	932 Heater Plug.....	.40
Plugall.....	9 Appliance Plug with Spring.....	.30
"	700 " " " " Switch.....	.85
Propp.....	5—One 4 All Appliance Plug, no Switch.....	.30
"	55 Standard Iron Plug, no Switch.....	.25
"	56 Armored " " "55
"	52 Iron Plug with Switch.....	.55
P & S.....	93 Appliance Switch Plug.....	.60
Ryanolite.....	500 Ryanolite Connector Plug, no Switch.....	.85
"	" " " " with Switch.....	.85
Rodale.....	P-21 Appliance Plug No Switch.....	.25
"	" P-29 " " " " Armored.....	.30
"	" 610 " " " " Bakelite No Switch.....	.30
"	" 615 " " " " Armored.....	.45
"	" 850 " " " " with Switch.....	.45
"	" " " " Armored With Switch.....	1.00
Security.....	151 Security Appliance Plug, no Switch.....	.40
Simpex.....	890 Armored Appliance Plug, no Switch.....	.75
Sunbeam.....	Heater Plug.....	1.50
Torrid.....	B-000-3-4-5-6 Safety Control Plug.....	1.00
"	B-080-3-4-5-6 Heat Control Plug.....	1.00
Westinghouse.....	299423 Plug Complete, no Switch.....	.75
"	37556 " " " " with Switch.....	1.25
White Cross.....	White Cross Heater Plug, no Switch.....	.60
"	" " " " " " with Switch.....	.90

BULLDOG FUSERS

No.	Description	2	4	6	8	12
CBS	Surface	Ciret.	Ciret.	Ciret.	Ciret.	Ciret.
	Black Finish with inside shield	\$1.85	\$ 2.35	\$ 3.95	\$ 7.10	\$10.40
BOS	" Black Finish without Shield	1.70	2.20	.....	.....	.....
BF	Flush Luminized Finish	2.50	3.75	5.40	8.80	11.80
BBF	" Black Finish	2.00	2.75	4.75	.....	.....
BSF	" Lum. Finish with Toggle Switches	.....	6.65	10.00	13.30	20.00
BSS	" Lum. Finish with one 30 A. Saftofuse	.....	20.80	22.00	32.00	35.25
BSS	" Lum. Finish with one 60 A. Saftofuse	.....	21.60	22.50	32.35	35.65
BKF	" Lum. Finish Combined Fusenter & Pull Box	.....	6.65	10.00	15.00	20.00

Combinations—For Retail Prices on all other Fusenter Combinations deduct 17% from Bulldog Co.'s List Prices.

All Steel Equipment Co., FUSE CABS

Style & No.	Description	2	4	6	8	12
C-702-4-6	Surface Small Type	\$1.75	\$2.45	\$ 3.75	.....	.....
C-902-4-6	Flush Small Type	2.20	2.85	4.95	.....	.....
Series D	Surface Type Sgl. Fuse					
3004 to 3074	Not for Branch Switch	.....	3.20	5.10	\$ 7.50	\$10.10
	Flush Type					
3034 to 3094	Not for Branch Switch.	.....	3.75	5.60	9.00	12.10
	Surface Type Dbl.Fuse					
4002 to 4012	Not for Branch Switch.	3.20	5.10	10.10	23.00	36.00
	Flush Type Dble. Fuse					
4022 to 4032	Not for Branch Switch.	3.75	9.00	12.10	27.00	45.00
Series DS	Flush or Surface-Sgle.					
3300 & 4300	Fuse Trims for Tog. Sw.	.....	6.90	9.25	13.80	21.00
	Flush or Surface-Dble.					
3500 & 4500	Fuse Trims for Tog. Sw.	6.90	9.25	21.00	34.50	70.00

TRUMBULL—CIRCLE T
Residence Panel Boards

	4	6	8	10	12
Surface or Flush Mounting	Circt.	Circt.	Circt.	Circt.	Circt.
Single No 3104 to 3212 Flush Mtg.					
Or Fusing 2906 to 2912 Surface Mtg.	\$2.85	\$ 4.60	\$ 9.75	\$11.30	\$13.00
Double No. 3404 to 3412 Flush Mtg.					
Or Fusing 2704 to 2712 Surfac: Mtg.	0.15	12.45	18.25	23.25	26.60

CUTLER-HAMMER (T-V)

Fuse Panels—Surface or Flush Mounting

Circuits	2 Cir.	4 Cir.	6 Cir.
Black Finish Series 4355 & 4356	\$ 1.75	\$ 2.40	\$ 4.30
Aluminum Finish Series 4355 & 4356	2.25	3.20	4.90
Circuits	8 Cir.	10 Cir.	12 Cir.
Black Finish Series 4355 & 4356	\$ 7.60	\$ 9.10	\$ 9.30
Aluminum Finish Series 4355 & 4356	7.95	10.00	10.70

SQUARE D Fuse Cabinets

	2	4	6	8	10	12
Series 37000 to 39000	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit
Flush Ser 37000 Black	\$1.85	\$2.50	\$4.50	\$7.00	\$ 9.60	\$11.25
" " 37000 Aluminum	2.35	3.35	5.20	8.30	10.00	11.25
Surface Series 39000 Black	1.85	2.50	4.50	7.00	9.60	11.25

NOTE: 2 & 4 Circuit Flush Type are also available with channels for Lath Ends for mounting direct to front side of studing. For these cabinets add to Resale Price each.....\$0.20

WESTINGHOUSE Junior Residence Type

	2	4	6	8	10	12
	Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
Galvanized or Gray Box Junior Residence Panels No. K-64012-21 & 64052-01	\$1.70	\$2.50	\$ 4.50	\$ 6.65	\$ 7.90	\$10.00
Junior Branch Fuse Attach No. K-62395 & 62399	1.75	2.60				
Junior Building Panels for Togg'e Switches						
No. K-64034-42 & 64074-81	.....	6.65	10.00	13.30	16.60	20.00

DIAMOND PANELETTES

Surface Type				Flush Type			
No.	Circuits	Size	Price	No.	Circuits	Size	Price
B-4	4	7 x 3 1/2	\$2.35	F-4	4	8 x 10 1/2 x 3 1/2	\$ 3.30
E-4	4	8 x 10 1/2 x 3 1/2	2.50	F-6	6	8 x 10 1/2 x 3 1/2	4.45
S-6	6	8 x 12 x 3 1/2	3.50	F-8	8	8 x 13 1/2 x 3 1/2	8.25
S-8	8	8 x 13 1/2 x 3 1/2	6.85	F-10	10	8 x 15 1/2 x 3 1/2	9.75
S-10	10	8 x 15 1/2 x 3 1/2	7.40	F-12	12	10 x 18 x 3 1/2	11.15
S-12	12	10 x 18 x 3 1/2	9.90	.....	..	.....	.....

Toggle Flush Type				
No. of Circuits.....	4	6	8	10
Cat. Number.....	FS-4	FS-6	FS-8	FS-10
Price.....	\$6.00	\$9.90	\$14.85	\$19.80

P-SUNDRIES

RUNNING THREAD, PIPE

Price per Foot.....	\$.25	\$.30	\$.35	\$.45
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SOLDERING PASTE

(Also on Page PL-25.)

Make	2 Oz. Cans	2 Oz. Tubes	4 Oz. Cans	Half Pound Cans	One Pound Cans
Allen.....	\$.30	\$.40	\$.55	\$.90	\$1.50
Burnley.....	.20		.30	.40	.70
Crescent.....	.25		.35	.55	.85
G. E.....	.20			.75	1.30
Highland.....	.40				1.50
Nokorode.....	.30			.75	1.50
Star.....	.25		.35	.55	.85

PAINT & VARNISH

Insulating

Make	Per Pint	Per Quart	Per Half Gallon	Per Gallon
Armalcac.....	\$.55	\$1.00	\$1.75	\$3.00
Ajax Varnish No. 25.....	.40	.75	1.35	2.20
Enamalcac.....	.40	.75	1.35	2.20
G. P. Black or Clear.....	.45	.80	1.45	2.60
Lustorac.....	.40	.75	1.35	2.20
Poltolac Quick Drying.....	.40	.75	1.35	2.20
P. B. Black Insulating.....	.40	.75	1.35	2.20
P. B. No. 2 Paint.....	.55	1.00	1.75	3.00
Pothead Compound, per Pound.....				\$.55

CONDUIT PLUGS

	$\frac{1}{8}$ "	$\frac{3}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
Price Each.....	\$.02	\$.03	\$.05	\$.10	\$.16	\$.26

For Pipe Straps, see Page PL-25. For Solder, Sticks, etc., Page PL-25.

PLATES & PLUGS, RECEPTACLE

PLATES

For Flush Receptacles

	.040 Thick		.060 Thick	
Brass	Sprayed B.	Brass	Sprayed B.	Brass
Stand. Recep. Plate Single or Duplex	\$.15	\$.20	\$.20	\$.30
Lift. Cover Pl. Single only		.40	.40	.45
Lift Cov. 2 Gang	.50	.60	.75	.85
Combination Switch & Receptacle.....			.55	.60
Disappearing Door Plate Single.....				.70
Duplex.....				1.10
20 & 30 Amp. Brass Plates similar to Hubbell Nos. 7072 & 7114.....				1.50

SUNDRY PLATES

For Receptacles

Bakelite or Composition Plate Single or Duplex Each.....	\$.20
2 Gang Combination Plate Each.....	.40
Guth Porcelain Plate for Single or Duplex Receptacle.....	.30
Mirror Glass Single Plate \$1.00—Duplex \$1.75—3 Gang.....	2.50
Bryant Wood Inlaid One for Single or Duplex Receptacle.....	2.25
De Luxe All Metal.....	.85
Hubbell Bakelite Screwless Plate * * * * *	.60

ALABAX RECEPTACLES AND FIXTURES

P & S, Hubbell, Arrow, G. E., Bryant, Weber

Symbol: Column No. 1—Number of Alabax Fixture.
Column No. 2—Resale Price Standard White Glaze Finish.
Column No. 3—Resale Price All Over Color B-D-E-F-G-H-J-K-L-M.
Column No. 4—Resale Price Stripe Decoration No. 1A-2A-4A.

10 A. Composition Pony	2 Wire.....	Blades Parallel	Price \$ 1.00
10 A. Composition Standard	2 Wire.....	Parallel	.10
10 A. Genuine Bakelite	2 Wire.....	Parallel	.20
10 A. Large Size Comp.	2 Wire.....	Tandem	.25
10 A. Large Size Comp.	2 Wire.....	Polariz.	.35
10 A. Disapp. Door Comp.	2 Wire.....	.....	.75
10 A. Disapp. Door Brass Covered			1.00
10 A. Steel Covered Std.	2 Wire.....	Parallel	.15
10 A. Brass Covered Std.	2 Wire.....	Parallel	.30
10 A. Cord Grip Comp.	2 Wire.....	Parallel	.30
10 A. Cord Grip Steel Cov.	2 Wire.....	Parallel	.50
10 A. Knostrain All Comp.	2 Wire.....	Parallel	.45
10 A. Knostrain Brass Cov. Base	2 Wire.....	Parallel	.85
10 A. Knostrain All Brass Cover	2 Wire.....	Parallel	.95
20 A. Composition	2 Wire.....	Polariz.	.60
20 A. Composition	3 Wire.....	Polariz.	.65
20 A. Brass Covered	2 Wire.....	Polariz.	.65
20 A. Brass Covered	3 Wire.....	Polariz.	1.00
20 A. Comp. Cord Grip	2 Wire.....	Polariz.	.75
20 A. Comp. Cord Grip	3 Wire.....	Polariz.	.95
20 A. Steel Cov. Cord Grip	2 Wire.....	Polariz.	.95
20 A. Steel Cov. Cord Grip	3 Wire.....	Polariz.	1.20
30 A. Composition	2 Wire.....	Polariz.	.75
30 A. Composition Habbell	2 Wire.....	Polariz.	1.45
30 A. Porcelain	3 Wire.....	Polariz.	.65
30 A. Comp. Cord Grip	3 Wire.....	Polariz.	.65
30 A. Steel Cov. Cord Grip	2 Wire.....	Polariz.	1.80
30 A. Steel Cov. Cord Grip	3 Wire.....	Polariz.	2.15

Column 1	Column 2	Column 3	Column 4	Column 1	Column 2	Column 3	Column 4
Number	White	Color	Stripe	Number	White	Color	Stripe
AL 844	\$3.30	\$3.75	.....	AL 990	\$1.90	\$2.20	\$2.40
845	3.60	4.05		1200	2.20	2.45	2.65
846	3.85	4.30	\$4.75	1201	2.50	2.75	2.95
847	4.15	4.60	5.05	1202	2.20	2.45	2.65
848	1.85	2.15	2.30	1203	2.50	2.75	2.95
849	2.30	2.60	2.75	1273	.45	.60	.70
850	2.30	2.60	2.75	1274	.80	.90	1.00
851	1.40	1.65	1.85	1275	.85	1.00	1.10
852	3.30	3.75	4.20	1276	.15	.30	.40
853	3.60	4.05	4.50	1300	2.80	3.10	3.25
859	1.85	2.15	2.30	1301	2.80	3.10	3.25
863	1.85	2.15	2.30	1349	2.60	2.90	3.10
864	2.75	3.20	3.65	1350	2.60	2.90	3.10
865	3.05	3.50	3.95	1351	1.70	1.95	2.15
866	2.75	3.20		1369	2.80	3.05	3.25
867	3.05	3.50	.....	1370	2.80	3.05	3.25
869	2.50	2.75	2.95	1371	1.85	2.15	2.30
870	2.50	2.75	2.95	1449	2.70	2.95	3.15
871	1.55	1.80	2.00	1450	2.70	2.95	3.15
872	3.30	3.75	4.20	1451	1.75	2.05	2.25
873	3.60	4.05	4.50	1469	2.85	3.15	3.35
875	2.30	2.60	2.75	1470	2.85	3.15	3.35
898	.95	1.20	1.40	1471	1.95	2.20	2.40
919	1.65	1.90	2.10	1475	2.85	3.15	3.30
920	1.65	1.90	2.10	1476	2.85	3.15	3.30
921	.70	1.00	1.15	2007	1.25	1.50	1.70
922	1.65	1.90	2.10	2008	1.35	1.65	1.85
923	2.30	2.60	2.75	2009	1.30	1.60	1.75
924	2.90	2.25	2.45	2010	1.45	1.70	1.90
929	1.95	2.20	2.40	2011	.10	1.35	1.55
930	1.95	2.20	2.40	2012	1.15	1.40	1.60
949	2.00	2.30	2.45	2013	1.70	1.95	2.15
950	2.00	2.30	2.45	2014	1.80	2.10	2.30
951	1.10	1.35	1.55	2015	1.55	1.80	2.00
952	1.95	2.20	2.40	2371	1.90	2.15	2.35
960	1.00	1.30	1.45	2469	3.20	3.65	4.10
962	2.00	2.30	2.45	2520	2.75	3.05	3.35
969	2.15	2.45	2.60	2669	4.40	4.85	5.30
970	2.15	2.45	2.60	2671	4.00	4.40	4.85
971	1.25	1.50	1.70	2846	3.85	4.30	4.75
980	1.50	1.75	1.95	2847	4.15	4.60	5.05
981	1.40	1.70	1.85	2852	3.30	3.75	4.20
982	1.70	1.95	2.15	2853	3.60	4.05	4.50
983	1.65	1.90	2.10	2926	1.95	2.25	2.45
984	1.25	1.55	1.70	9836	1.90	2.20	2.45
985	1.20	1.50	1.65	9896	2.15	2.40	2.60
989	1.85	2.15	2.30	9906	2.20	2.45	2.65

The above Prices do not include Glassware or Lamps.

RECEPTACLES, SURFACE

SURFACE RECEPTACLES—Edison Base

Without Plates			Plates Extra	Price
Shallow	Comp.	Side Wired	Single.....	\$.25
"	"	"	Duplex.....	.35
"	Porc.	"	Single.....	.25
"	"	"	Duplex.....	.35
Deep	Comp.	Top	Single.....	.40
"	"	"	Duplex.....	.60
"	Porc.	"	Single.....	.40
"	"	"	Duplex.....	.60

Description	All Keyless No S. H. Groove	Universal Number	Price
Pony Cleat Receptacle Side Screws	50715	\$ 1.15
Round Center	9171	.20
Standard Cleat Side	9402	.30
" " " With	4013	.40
Oblong	58300	.55
Concealed Round Base	4001	.55
" " " With Removable Ring	5844	.55
Oblong Receptacle for Wood Molding with S. H. Groove	4026	.60
Miniature or Candelabra Small Type	9445-6	.20
" " Extended	366-7	.20
Mogul P & S. 520, Arrow 5012, GE 1194, Hubbell 3404, Weber 142285

T-SLOT SURFACE RECEPTACLES

Plates Extra Except Where Marked "X"

x	For Life Cover Plate Single.....	\$.55
x	" " Duplex.....	.75
x	With Rd. Met. Cvr. For 3 $\frac{1}{4}$ Box Single.....	.80
x	" " " Duplex.....	.45
x	" " " 4 " Single.....	.35
x	" " " " Duplex.....	.60
x	With Rd. Brass Plate Small Single.....	1.15
x	" " " Large.....	1.30
x	Edison Screw Base Recp. Single.....	.25
x	Disappearing Door Recp. Single.....	.75
x	" " Duplex.....	1.10
x	Screwless Plate Recep. Single.....	.30
x	" " Duplex.....	.45
x	10 Amp. Polariz. For 2 Wire Single.....	.65
x	" " " 2 " " " " " " " " " " " "	1.20
x	" " " 2 " " " " " " " " " " " "	3.00
x	" " " 2 " " " " " " " " " " " "	1.50
x	" " " 2 " " " " " " " " " " " "	1.65
x	" " " 2 " " " " " " " " " " " "	4.75
x	" " " 3 " " " " " " " " " " " "	5.50
x	40-60 Amp. Polariz. 3 Wire Single.....	9.50

YAXLEY RADIO RECEPTACLES

No.	Connections	Brass	Rakelite
134	Several loud speakers	\$2.50	\$2.60
135	Loud speaker	1.00	1.10
136	Aerial & ground	1.00	1.10
137	Electric switch plate	2.00	2.00
138	Electrical only	1.00	1.10
142	Double loud speaker	1.15	1.85
238	Loud speaker, aerial & ground	2.00	2.20
241	Aerial, ground & elect ¹	2.00	2.30
243	Loud speaker, elect ¹	2.00	2.30
239	Aerial, ground & battery	2.50	2.70
353	Loud speaker, aerial, ground & elect ¹	3.00	3.10

RECEPTACLE COMBINATIONS

With Plates

Bryant Numbers or Equal

2967-2979	One Porc. Flush Recep.	One Tumb. Switch Tempus or Brass Pl.	\$2.00
2967-2989	One Comp. Recep.	One Tumb. Switch Tempus or Brass Plate...	\$2.00
117	* Porc. Flush Recep.	One Ind. Switch-.060 Brass Plate...	2.00
121	* " "	One Pilot light .060 Brass Plate...	2.00
514	* Disap. Door Rec.	One Bulls Eye Solid Plate...	7.50
518	* " "	Flush Switch-Bulls Eye Solid Pl.	5.00
469	* Flush Recep.	One Flush Switch Bulls Eye Solid Plate...	6.00
763	Duplex Flush Recep.	Bulls Eye Solid Plate...	6.00
538	* " "	Push Switch Bulls Eye Solid Plate...	6.00
427	Bulls Eye Receptacle & Lamp no plate...	" "	2.12
Hubbell Switch Tap Combination #7163 & 7164 without Plate...	" "	" "	1.12

RECEPTACLES, PORCELAIN

PULL TYPE OR LAMPHOLDERS

Keyless & Pull Chain for Lighting

Univ. No.	G.E.		Description	Price
832		Porcelain Pull Recept. For 3/4"	Box 4 Ft. Cord.....	\$.80
836	" "	" " " " " "	Box 7 In. Chain.....	.80
935	" "	" " " " " "	Box 4 Ft. Cord.....	1.00
936	" "	" " " " " "	Box 7 Inch Chain.....	1.00
944 2288	" "	" Ring Recept. with 7'	chain-Insutr.-4' cord	.50
995 2292	" "	" " " " " "	" 7" chain.....	.50
996 2289	" "	" " " " " "	" 4 Foot of Cord.....	.50
997 2253	" "	" " " " " "	" 7 chain & Insulator..	.60
998 2287	" "	" " " " " "	" 3 chain & 4 Ft. Cord.	.60
999	" "	" " " " " "	" 3 Foot of Chain.....	.60

HEAVY DUTY SOCKETS—Benjamin

Benco. Keyless Socket	with Clamp Ring	#4700 to 4703	Medium Base	.....	\$1.25
	" "	" "	" "	.....	1.10
" Full	" "	" "	" "	.....	2.00
Benco Keyless Socket	Copper or Alum.	#4200-1-45 & 4335 & 7	.....		.80
	Brass	#4202-4203-4336	.....		1.80
" Full	" "	" "	.....		1.80
" Mogul	Copper Clad	#4201-4297	.....		2.25
Benco Threaded Holders Only					
Polish. Alum. Weatherpri	#4215 & 4217	.....			4
Copper	" "	.....		
Brushed Brass	" "	.....		

BENJAMIN MOGUL SOCKETS

BENJAMIN MOGUL SOCKETS		With 3/8 or 1/2 Iron Yoke	With 3/8 or 1/2 Alum. Yoke
	Without Yoke		
One Piece Socket with Lamp Grip.....	\$1.00	\$1.25	\$1.50
Two Piece Socket with Lamp Grip.....	1.20	1.45	1.70

BENJAMIN REFLECTOR SOCKETS

Porcelain or Similar		With Type X or XR Fitting	
Medium Base Keyless	Tapped $\frac{3}{8}$ - $\frac{1}{2}$ - $\frac{3}{4}$ No. 4005-4009 4650-51 & 65...	\$1.20	2.00
"	" Self Locking $\frac{3}{8}$ - $\frac{1}{2}$ - $\frac{3}{4}$ No. 4528-29 30-32-33...	1.60	2.40
"	" Shock Absorb. $\frac{3}{8}$ - $\frac{1}{2}$ - $\frac{3}{4}$ No. 4676-77-78-80-81...	1.45	2.15
"	" Pull Chain No. 4538-39 4660-61	2.15	2.40
Mogul Base Keyless	Shock Absorbing No. 4670-71-72...	2.00	2.00
"	" Not Shock Absorbing No. 4656-57 4666...	1.65	2.00
If X or XR Fitting	not supplied on above sockets deduct...	.45	

SWITCHES, FLUSH TUMBLER

Plates & Boxes Extra

Square Handle Porcelain Cup—Sgl. Pole.....	\$.35
Dble.....	1.00
3 Way.....	.50
4.....	3.00
Composition Cup—Sgl. Pole.....	.85
Dble.....	1.35
3 Way.....	1.00
4.....	3.45
Round Handle Porcelain Cup—Sgl.....	.35
Dble.....	1.00
3 Way.....	.50
4.....	3.00
Composition Cup—Sgl.....	1.50
Dble.....	1.00
3 Way.....	1.30
4.....	3.50
New 2 Circuit Type Dugle-Twin-Duplex, Multitoggle, etc. 2.....	1.10
Single-Trip-Trip & Multitoggle, 3.....	1.35
2.....	.35
Lock Type Porcelain Cup—Sgl. Pole.....	1.30
Dble.....	1.85
3 Way.....	1.55
4.....	3.85
EXTRAS—For Luminous Tip add for Each Handle.....	
For Glo Guide Handle Switches add for Each.....	1.00

TUMBLER SWITCH COMBINATIONS

			With Plates	Prices
Bryant	2957-2979	One Tumb.	Sw.—One Flush Recep. Brass or Temp. P.	\$2.00
"	2959	"	" Pilot Light .060 Plate	3.00
H & H	8887	"	" Bulls Eye .060	3.25
"	8800	"	" Recep. Bulls Eye Solid	5.45
"	8805	"	Duplex	5.75
H & H	8974	One tumb. sw. and one Con. Outlet		2.00
Hubbell	7163 & 7164	Switch Tap Combination No Plate		2.15

PLATES For Tumbler Switches

	1	2	3	4
	Gang	Gang	Gang	Gang
Stamped Brass Sprayed Finish .040 Thick.....	\$.15	\$.30	\$.45	\$1.35
" " Brush Brass .040 ".....	..20	..40	..60	1.50
" " Sprayed .060 ".....	..20	..40	..60	1.70
" " Brush Brass .060 ".....	..20	..40	..60	1.80
Bakelite or Composition Molded.....	..20	..40	..60	..80
Twin & Triple Struck Up Plates.....	..20	..30	..30	..80
Solid Brass.....	..50	..50	..50	..50
Hubbell Bakelite Screwless Plates.....	..60	1.10	1.60	..60
Bryant DeLux Wood Inlaid any Finish.....	2.25	3.90	6.40	..60
All Metal.....	..85	1.50	2.10	..60
Guth Porcelain Enamel Plates.....	1.00	1.00	1.00	1.00
Glass Mirror Plates.....	1.00	1.75	2.50	3.25
Combination Switch & Receptacle Plate Molded.....	..40	..40	..40	..40
Brass .040 thick.....	..50	..50	..50	..50

SWITCHES, FLUSH PUSH

Plate & Boxes Extra

Standard Shallow Type Porcelain Cup—Single Pole.....	.70	.38
" " " " Double	1.10	1.10
" " " " 3 Point	1.50	1.50
Deep Type Porcelain Cup—Single Pole.....	.70	.70
" " " " Double	1.10	1.10
" " " " 3 Point	1.10	1.10
Special High Grade —Single Pole.....	3.10	3.10
" " " " Double	1.10	1.10
" " " " 3 Point	1.50	1.50
Lock Type Porcelain Cup—Single Pole.....	3.10	3.10
" " " " Double	1.40	1.40
" " " " 3 Point	1.80	1.80
Electrolite Non-Indicating.....	3.80	3.80
Indicating.....	1.70	1.90
Extra for Luminous Button Add Per Switch.....	1.90	1.90

PUSH SWITCH COMBINATIONS

With Plates

Bryant	117	D. P.	Indicat. Switch	Flush Receptacle & .060 Plate	.....	\$2.00
	413	One	Push Switch-Bulls Eye and Solid Plate	.....		4.00
	518		Disap. Door Recp.	Bulls Eye—Solid Plate	.....	7.50
	465	D. P.	Flush Switch & Pilot Lamp	.060 Plate	.....	3.50
	467		Flush Switch—	Bulls Eye—Solid Plate	.....	6.00
	558			Duplex	.....	6.30
H & H	3752			Bulls Eye—Solid Plate	.....	4.00
	3759			Duplex Recp. Solid Plate	.....	5.50
	8810			Single	.....	5.30

PLATES For Flush Push Switches

Description	1	2	3	4
Stamped Brass Sprayed Finish .040 Thick.....	\$.15	\$.30	\$.45	\$1.35
" " " Brush Brass .040 .....	.20	.40	.60	1.55
" " " Sprayed .060 .....	.20	.40	.60	1.70
" " " Brush Brass .060 .....	.20	.60	.90	1.85
Bakelite or Composition .....	.20	.40	.60	.80
Bryant DeLuxe Plates With Inlay.....	2.25	3.00	6.40	....
" " All Metal.....	.25	1.50	2.10	....
Guth Porcelain Plates .....	.30	.65	1.00	....
Glass Mirror Plates	1.00	1.75	2.50	3.25
Combination Push & Receptacle Plates .060 Brass.....	..	..	..	.50
" " " Molding .....	..	..	..	.40
" " " Guth Enameled .....	..	..	..	.85
" " " Mirror Glass.....	..	..	..	1.75

SWITCHES, SURFACE SNAP

METAL COVERED SNAP SWITCHES

Poles	Volts	Type	Size	5	10	20	30
Single	125	Non-Indicating.....	Pony	Amp. \$.35	Amp.	Amp.	Amp.
"	"	Indicating.....	"	.40	.....	.....	.....
"	"	Indicating.....	Standard	.45	\$.45	.....	.....
"	"	Indicating.....	"	.65	.85	1.60	2.35
Double	250	Non-Indicating.....	"	.90	1.05	2.20	2.65
"	"	Indicating.....	"	1.00	1.20	2.35	2.80
Triple	"	Non-Indicating.....	"	"	2.95	3.75	4.50
"	"	Indicating.....	"	"	3.10	3.90	4.65
2-Way	125	Non-Indicating.....	"	.25	.....	2.35	2.80
4-Way	250	Non-Indicating.....	"	1.35	2.05	2.20	.....
Electrolite	"	Non-Indicat. 110V.....	"	1.40	1.40	2.20	.....
"	"	Indicating 110V.....	"	1.50	1.55	2.35	.....

ALL PORCELAIN SNAP SWITCHES

Poles	Volts	Type	Size	5	10	20	30
Single	125	Non-Indicating.....	Pony	\$.50	.....	.....	.....
"	125	Indicating.....	"	.....	.....	.....	.....
"	125	Non-Indicating.....	Standard	.65	\$ 1.00	\$1.65	\$2.00
"	125	Indicating.....	"	.75	1.00	1.80	2.55
Double	250	Non-Indicating.....	"	.95	1.20	2.45	2.85
"	250	Indicating.....	"	1.10	1.35	2.60	3.00
3-Way	125	Non-Indicating.....	"	.95	.35	2.60	3.00
4-Way	125	Non-Indicating.....	"	1.50	3.00	.....	.....
"	"	".....	"	1.55	1.55	.....	.....
Electrolite	"	Indicating.....	"	1.70	1.70	.....	.....

TUMBLER OR TOGGLE SNAP SWITCHES—Metal

	Metal Single Pole	Double Pole	3 Point	4 Point
125-250 Volt				
5 Amp. Closed or Slott. Base.....	\$.35	\$.85	\$.80	.....
10	.80	1.10	1.25	\$1.40

SNAP SWITCHES FOR WOOD MOLD, CONDULETS, ETC.

	Metal Covered		All Porcelain	
	5 Amp. 125 Volts	Non-Indicating	Indicating	Non-Indicating
Single Pole.....	\$.65	\$.60	\$.75	\$.70
Double *.....	1.10	1.05	1.20	1.15
Three Point.....	1.10	1.05	1.20	1.15
Electroliner.....	1.40	1.40	1.40	1.40

PARTS FOR SNAP SWITCHES

Handles—Standard Type Each \$.12—Ratchet Type.....	Price
Bases—Porcelain 5 Amp. \$.12—10 Amp. \$.15—20 Amp.....	.20
Covers—10 Amp & Under Metal \$.15—Porcelain.....	.20
Over 10 Amp.....	.30

**SWITCHES, PULL CORD, CHAIN,
CANOPY, LEVOLIER, ETC.**

PULL CORD SWITCHES

Complete With 1/8 Cap, Small Socket Type

	With $\frac{3}{4}$ Female Brass Cap	Price
Ceiling—Bottom Pull Complete	\$1.00
Wall—Side Pull	1.00
Rosette—Side Pull	1.00
Adjustable Pull	1.25
Deduct for Base only without $\frac{3}{4}$ Brass Cap10
Add for $\frac{3}{4}$ Brass Cap on any of above Switches20
" " " "10
" Small Concealed Base of above Switches25
" Cleat30
" Base to Fit $3\frac{3}{4}$ Box of above Switches55
" " " "	1.10
" Wood Moulding Base of above Switches30
" Angle Base30

HEAVY DUTY PULL CORD SWITCHES, METAL COVER
With 8 Feet Heavy Cord

S.P. with Small Porc. Slotted or Solid B.	Price
D.P.	\$1.65
3 Pole	1.85

These switches can be furnished with side or bottom open, at same price.

These switches can be furnished with side or bottom open, at same price.

Switches, Pull Cord

TYPE "O" PULL SWITCHES
For Ceiling Fixtures or Ceiling Fans

Single or Double Pole—3 & 4 Point Electrolier & Motor Control—Similar to Bryant #2473 to 2480 with 3/4 Caps. cord & Ball Each.....\$2.00

CANOPY SWITCHES

Snap or Tumbler Canopy Switches any style any make (except below).....\$.40
Pull Type P & S—3316 or 17—Arrow 340—Bryant 666......95

LEVOLIER PULL SWITCHES
McGill Co.

Two-Lite Canopy or Fixture Switch #50-51-52.....\$1.00
Link Switch #59.....1.00
Conduit Box & Fixture Switch #61-62 & 63.....1.00
Switch Hickey 64 & 64 A for above......15

PENDANT SWITCHES
With Brass Pendant Cap

Brass Shell Pend. Cap Side Button.....\$.60
" " Bottom......80
" Type "O" " ".....1.00
All Porcelain " Side "......60
" (10 Amps) " "......85

FEED THROUGH SWITCHES

Nickel Feed Thru Switch.....\$.50
Composition Feed Thru Switch......50
Bakelite Feed Thru Switch, One Heat......50
Bakelite Feed Thru Switch, Three Heat......90

DOOR SWITCHES

Door Switch without Box.....\$3.50
Box Extra......50

DOOR SWITCHES & OPENERS
Edwards—commonly used types

#9	Door Opener Mortise Type	\$ 2.75	#152 Rim Type Flush.....	\$ 6.10
48	" " " "	31.25	#152 for Surface Conduit.....	25.25
48A	" " " "	34.25	154 Mortise Type.....	5.75
50	" " " "	31.25	153 Plate Type.....	7.15
50A	" " " "	34.25	174 Door Switch.....	8.65
51	" " " "	34.25	Box for above #2000.....	1.30
51A	" " " "	35.25	1541 Opener Mortise Type.....	10.50
52	" " " "	38.25		
#239	—Latch for #52	3.55		

Partrick & Wilkins commonly used types

Mortise Type.....\$2.75 Rim Type.....\$5.00

SWITCHES, KNIFE, ENTRANCE & PANEL

ENTRANCE & PANEL SWITCHES
30 Amp. 125 Volts, Plug Fused

Description	Location of Fuses	Price
Double Pole.....	Top	\$.80
" " " "	Bottom	.80
" " " " Large Size.....	Top	.85
" " " " " "	Bottom	.85
Triple " " " " " "	Top	1.20
" " " " " "	Bottom	1.20
Double Pole Single Branch.....	Top	1.30
" " " " " "	Bottom	1.30
" " " " " " Large Type.....	Top	1.45
" " " " " " " "	Bottom	1.45
Double Pole—Double Branch Vert. Mains.....		2.90
" " " " Horiz. " " " "		2.90
Trip. to D. P. Double Branch Vert. Mains.....		3.05
" " " " Horiz. Mains.....		3.05

BABY KNIFE SWITCHES
Any Make

Any Make	Porcelain Base 125 Volt		Slate Base 250 Volts	
	15 Amp.	30 Amp.	15 Amp.	30 Amp.
Single Pole Single Throw.....	\$.50	\$.60	\$.60	\$.70
" " Double " " " "	.85	1.05	1.00	1.25
Double " " " " " "	.60	.70	.70	.85
" " Double " " " "	1.05	1.30	1.25	1.50
Triple " " " " " "	1.30	1.55	1.50	1.85
" " Double " " " "			2.00	2.50

TYPE "C" KNIFE SWITCHES
Slate Base Front Connected
Trumbull-Bulldog or Similar

Front Connected Slate Base	Not Fusible				Fusible			
	2 Pole	3 Pole	4 Pole	4 Pole	2 Pole	3 Pole	4 Pole	
Sgl. Throw 30 A. 250 V. Only.....	\$1.15	\$1.65	\$2.25					
" " 250 & 500 V. AC.....								
" " 30 A.....	1.75	2.65		\$1.70	\$2.60	\$3.50		
" " 60 A.....	2.00	3.00	4.05	2.95	4.45	5.95		
" " 100 A.....	4.10	5.20	8.25	6.00	9.05	12.05		
" " 200 A.....	7.45	11.15	14.85	11.10	16.70	22.25		
Dbl. Throw 30 A. 250 V. Only.....	1.90	2.95	4.22					
" " 250 & 500 V. AC.....								
" " 30 A.....	2.80	4.35		3.60	5.80	7.95		
" " 60 A.....	3.30	5.10	7.25	5.60	8.95	12.35		
" " 100 A.....	7.40	11.55	16.10	12.20	19.50	26.85		
" " 200 A.....	12.35	19.05	25.55	21.40	34.30	43.90		

SWITCHES, RESIDENCE, METER SERVICE, INDUSTRIAL, ETC.

SMALL SERVICE ENTRANCE SWITCHES
30 Amp. "Square D" Switches Residence Type

Numbers	Volts	Description	2 Pole	3 Pole
97211-97311	125	For Plug Fuse Solid Neut.....	\$1.65	\$2.50
98211-99311	125	" " " " Neut. Fused.....	1.65	3.00
78211-79311	125	" " " " Meter Test.....	2.55	4.10
1211	125	Porc. Entr. Switch.....	1.80	
97251-97351	250	Encl. Fused Solid Neut.....	1.65	3.20
98251-99351	250	" " " " Fused Neut.....	2.50	4.35

METER SERVICE SWITCHES

"Square D" Accessible Main Fuses Without End Walls

Amps.	Poles	Fused For	Neutral	Meter Test Type		Non-Meter Test Type	
				Number	Price	Number	Price
30	2	2 Plug	Fused	30211	\$ 3.70	10211	\$ 3.35
30	2	1 " "	Solid	30231	3.25	10231	3.05
30	3	2 " "	" "	30331	4.15	10331	3.70
30	3	2 " "	Unfused	30381	4.85	10381	4.85
30	2	2 Enc.	Fused	30251	4.45	10251	4.25
30	2	1 " "	Solid	30271	3.60	10271	3.60
30	3	2 " "	Unfused	30361	5.40	10361	5.65
30	3	2 " "	Solid	30371	4.45	10371	4.25
60	2	2 " "	Fused	30252	16.80	10252	15.95
60	2	1 " "	Solid	30272	15.95	10272	15.05
60	3	2 " "	Unfused	30362	21.65	10362	20.55
60	3	2 " "	Solid	30372	17.70	10372	16.90
100	2	2 " "	Fused	30253	25.60	10253	24.75
100	2	1 " "	Solid	30273	25.60	10273	23.85
100	3	2 " "	Unfused	30383	30.90	10383	29.35
100	3	2 " "	Solid	30373	27.40	10373	25.60

METER SERVICE SWITCHES

"Square D" Main Fuses Sealed Without End Walls

Amps.	Poles	Fused For	Neutral	Meter Test Type		Non-Meter Test Type	
				Number	Price	Number	Price
30	2	2 Plug	Fused	36211	\$ 3.25	16211	\$ 2.85
30	2	1 " "	Solid	36231	3.25	16231	2.85
30	3	2 " "	" "	36331	3.45	16331	3.00
30	3	2 " "	Unfused	36381	3.45	16381	3.45
30	2	2 Enc.	Fused	36251	3.80	16251	3.40
30	2	1 " "	Solid	36271	3.50	16271	3.15
30	3	2 " "	Unfused	36361	4.00	16361	4.30
30	3	2 " "	Solid	36371	4.00	16371	3.55
60	2	2 " "	Fused	36252	15.05	16252	14.20
60	2	1 " "	Solid	36272	14.15	16272	13.30
60	3	2 " "	Unfused	36362	19.00	16362	17.90
60	3	2 " "	Solid	36372	15.95	16372	15.05
100	2	2 " "	Fused	36253	23.85	16253	23.00
100	2	1 " "	Solid	36273	23.85	16273	22.10
100	3	2 " "	Unfused	36383	26.50	16383	24.75
100	3	2 " "	Solid	36373	25.60	16373	23.85

MISCELLANEOUS

	Price
Enclosed Double Branch Cutout No. 35211—30 Amp. 125 Volts.....	\$2.35
Fused Plug Receptacle.....	5021—30 " 125 " 2.20
" " " " Cartridge.....	5001—30 " 250 " 5.65
Cabinet Porcelain Fuse Block.....	1021—30 " 125 " 1.25

UNIVERSAL METER SERVICE SWITCHES

"Square D" Meter Service Types

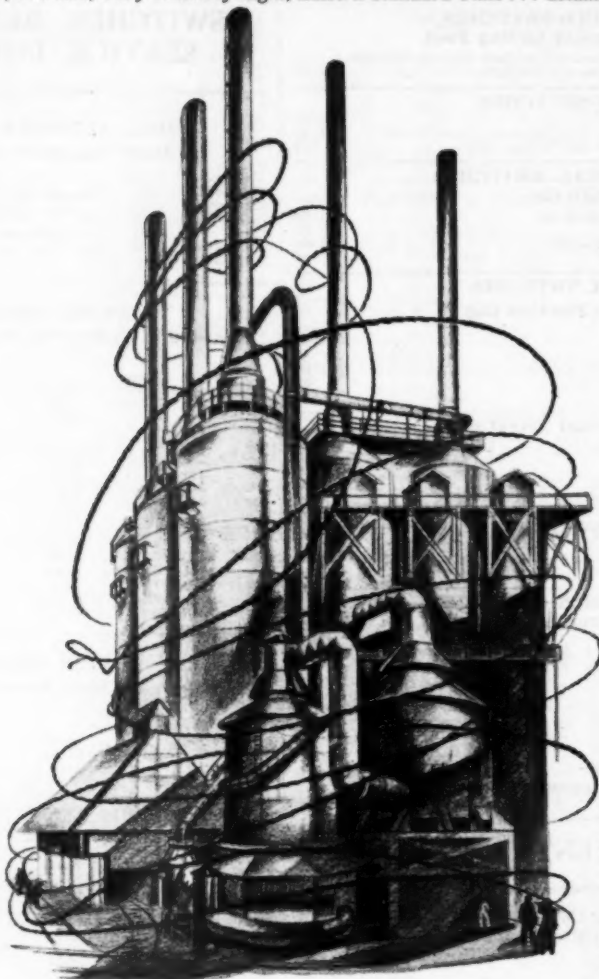
Single Type	Ganging Type
No. 32211 or 33211.....\$3.45	All 30 Amp. 125 Volt No. 12211-13211.....\$3.85
No. 32311.....3.75	Single Phase & DC No. 12311.....4.15
No. 34211.....4.30	without end walls No. 14311.....5.25
No. 34311.....4.85	

METER SERVICE SWITCHES

"Square D" Without End Walls Live & Dead Fuse Type

Number	Amps.	Pole	Fused	Neutral	Description	Price
55211	30	2	1 Plug	Solid	Single Type Fuse Dead.....	\$ 2.20
58211	30	2	2 " "	Fused	" " " " Live.....	2.70
SK-916	30	2	1 " "	Solid	" " " " " "	2.70
55311	30	3	2 " "	Solid	" " " " " "	3.45
57311	30	3	2 " "	" "	" " " " " "	3.45
15211	30	2	1 " "	" "	Gang Type Fuse Live.....	2.60
18211	30	2	2 " "	Fused	" " " " " "	3.10
39231	30	2	1 " "	Solid	Gang Type Acces. M. Fuses.....	4.05
39331	30	3	2 " "	" "	Gang Type Acces. M. Fuses.....	4.85
15311	30	3	2 " "	Solid	" " " " " "	3.85
17311	30	3	2 " "	" "	" " " " " "	3.85
58251	30	2	2 Cart.	Fused	Extra for End Wall.....	.30
26251	30	2	2 " "	" "	Cartridge Fuse Live.....	3.05
57351	30	3	2 " "	Solid	" " " " " "	3.75
28252	60	2	2 " "	Fused	" " " " " "	8.45
27312	60	3	2 " "	Solid	" " " " " "	8.90
14312	60	3	2 " "	" "	" " " " " "	
28253	100	2	2 " "	Fused	" " " " " "	19.80
27313	100	3	2 " "	Solid	" " " " " "	15.05
14313	100	3	2 " "	" "	" " " " " "	15.90
					Dead.....	27.35

Tune in on the Graybar hour, 9 to 9:30, every Saturday night, Eastern Standard Time . . . Columbia Broadcasting System.



A very small piece of defective wire can tie up a lot of big

machinery—and it can tie up a lot of money, too, while machines, men and schedules stagnate in forced idleness . . .

An interesting contrast? . . . Yes, but a costly one,—one forestalled by progressive electrical contractors awake to an opportunity to serve their customers. . . . Forward-looking contractors know that they can buy a very cheap insurance against break-down. That merely



the slight difference in price between "just wire" and the Graybar kind of wire and wiring supplies will bring the protection one can never

hope to get any other way.



For, unfortunately, very little about wire or conduit or wiring supplies can be known merely by looking at them. Until one has studied their record and their history, he has learned nothing.

The record of Graybar wiring supplies is the record of electrical construction in America for more than sixty years. Every test of usage, every adverse condition, every operating difficulty—all barriers have been met and overcome by these supplies in that time. They have, finally, established themselves as insurance.



Just a little wire . . . but how it can tie things up!

GraybaR

Successor to Western Electric Supply Dept.

Offices in 73 Principal Cities
Executive Offices: Graybar Building
Lexington Ave. and 43rd St., New York



THE GRAYBAR TAG—
SYMBOL OF
DISTRIBUTION



Every feature a proved advantage

Type TA group-operated disconnecting switches

The spring-pressure line contact is self-cleaning and self-aligning. It permits an ice-breaking action of the blade, that is effective in both opening and closing.

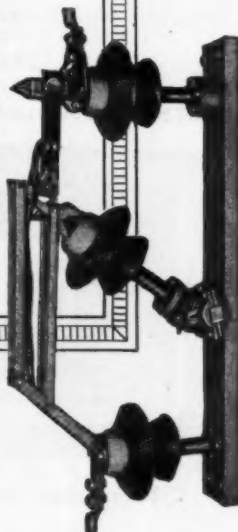
Positive operation of all poles is provided by a square steel shaft.

The switch is of vertical-break design. This provides ample break distance with minimum phase spacing and a net advantage of compact station arrangement.

Operation is effected with ease—the tilting insulators are counterbalanced by non-corrodible springs. Bronze-bushed bearings are standard.

Among numerous other features are cemented-cap interchangeable insulators, removable wooden operating handles, patented-process galvanized bolts and lock washers, and multi-bolt terminals.

Type TA switches are shipped from district warehouse stock. Order from Catalog GEA-1003.



500-31

JOIN US IN THE GENERAL ELECTRIC HOUR, BROADCAST EVERY SATURDAY AT 9 P.M., E.S.T. ON A NATION-WIDE N.B.C. NETWORK

GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN PRINCIPAL CITIES

By what name do prospects know you?

NOT just the name of your business. That means nothing to your prospects . . . until it is hooked up with a name for excellent work done—with excellent materials. Then you have a "good reputation".

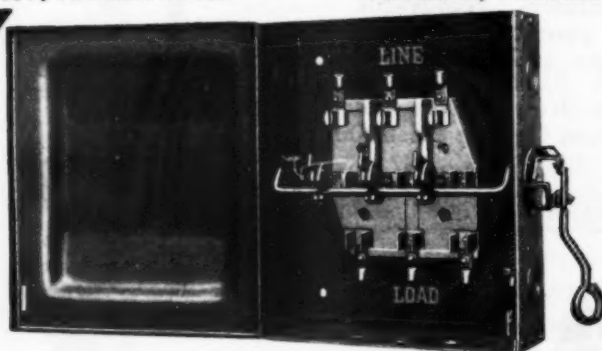
By specializing on equipment which has a reputation of its own . . . for instance, Cutler-Hammer Safety Switches . . . you build up your *own* reputation. C-H Safety Switches are known and guaranteed for their high grade workmanship, advanced design, rugged strength and long service.

C-H Standard Duty (Type C) Switch is quick make and quick break, assuring perfect contacts, reduced arcing, elimination of slow burning and fused contacts. . . more years of service and low maintenance. The base is molded and crack-proof, the handle removable to prevent tampering with the switch. The case is smaller than ordinary yet easy to wire.

"T-V" Standard Duty (Type C) Switch is made in six sizes, from 30 to 400 amperes, 250 and 600 volts. Any reliable jobber can supply you. A complete catalog of the C-H Line of Safety and Meter Service Switches will be sent at your request.

CUTLER-HAMMER Inc.

Trumbull-Vanderpoel Electric Mfg. Co., Subsidiary
1307 St. Paul Avenue Milwaukee, Wisconsin



C-H Standard Duty (Type C) Switch—Bul. 4131



Advantages of
C-H Universal Meter Service Switches
(Bulletin 4311)

First standard device offered having economical provision for branch circuits. Compact size of switchblock permits combination of enclosed sealed main fuse and exposed accessible branch fuses in one unit. Saves in original costs, space and erection time. Made in either one or two blade types for two or three wire installations. Circuit dead fuse type. Connections conveniently located.

CUTLER HAMMER

High Quality Safety Switches For Every Service

(9627)

"U.S." RAINBOW LINE of COLORED WIRES

*developed and manufactured exclusively by
the World's Largest Producer of Rubber*

THE Rainbow Line of "U. S." Paracore Wires and Cables is a complete line of colored Wires. Made in three grades, Code, Intermediate and 30%, from sizes 18 A.W.G. to 1,000,000 C.M.

Laboratory tests and actual installations prove the statements.

50 per Cent Easier Pulling and Circuit Testing in $\frac{1}{3}$ the time

Electrical Contractors from Coast to Coast tell us that the "U. S." Rainbow Line is one of the biggest developments in Wire manufacture in many years. Here are a few of the hundreds of comments in our files:

"We believe you have made,

**For good splices
use "U. S." Relio
Splicing Compound**

from the Electrical Contractor's viewpoint, one of the outstanding contributions to efficiency in wiring. . ."

"We appreciate the quality of your Wire and the amount of labor saved by using same. . ."

"The Rainbow system of identified Wires is a time saver in any place where more than one circuit is pulled into a conduit. The circuits are already identified. . ."

"On our next installation we will use the 'U. S.' Rainbow Line. . ."

"In using the Rainbow Line, we are eliminating all circuit tracing and testing and effecting a saving in time that cannot be made by the use of one colored wire. . ."

**For good splices use
"U. S." Holdtite
Friction Tape**

United States Rubber Company

1790 Broadway

New York City



Branches in every industrial center. We'll gladly serve you through your jobber

UNITED STATES RUBBER COMPANY
1790 Broadway Room 1630 New York City

Gentlemen:

Please send me ☐ Samples ☐ Prices ☐ Representative

Name _____ Title _____

Firm _____ Address _____

METER SERVICE SWITCHES—Continued

NON-METER TEST TYPE

Number	Amps.	Pole	Fused	Neutral	Description	Price
26311	30	3	2 Plug	Solid	Plug Type Fuse Dead.....	\$ 2.40
26351	30	3	2 Cart.	"	Cart. Type Fuse Dead.....	3.75
SK-615	30	3	2 Plug	Switched	Plug Type Fuse Dead.....	4.30
SK-650	30	3	2 Cart.	"	Cart. Type Fuse Dead.....	4.30
SK-660	60	3	2 "	"	Cart. Type Fuse Dead.....	11.70
SK-674	100	3	2 "	"	Cart. Type Fuse Dead.....	19.20

POLYPHASE METER SERVICE SWITCHES

"Square D" Accessible Main Fuse Type

METER TEST TYPE

Number	Amps.	Pole	Fused	Price
30391	30	3	3 Cart.....	\$ 9.90
30392	60	3	3 "	20.35
30393	100	3	3 "	30.00

NON METER TEST

Number	Amps.	Pole	Fused	Price
10391	30	3	3 Cart.....	\$ 9.30
10392	60	3	3 "	18.60
10393	100	3	3 "	28.25

"Square D" Sealable Main Fuses

METER TEST TYPE

Number	Amps.	Pole	Fused	Price
36351	30	3	3 Cart.....	\$ 9.20
36352	60	3	3 "	17.80
36393	100	3	3 "	26.50

NON METER TEST

Number	Amps.	Pole	Fused	Price
SK-671	30	3	3 Cart.....	\$ 4.30
SK-672	60	3	3 "	11.70
SK-673	100	3	3 "	19.20

FITTINGS FOR STANDARDIZED SWITCHES

	Price
End Walls for 30 Amp. Switches.....	\$.30
60 & 100 Amp. Switches.....	.80
Trough Closing Plates No. 20533 & 34.....	.10
Connecting Trough No. 20733—3 1/4" Long.....	.45
Universal End Wall & Shutter.....	.30
Meter Shutter only No. 24358.....	.15

TYPE C

"Square D" Single Throw, Industrial Switches
Quick Break Only

250 Volts Fusible				250V. DC & 500V. AC Fused & Unfused			
Amps.	2 Pole	3 Pole	Price	Amps.	2 Pole	3 Pole	Price
30	#85251 \$ 3.20	#85351 \$ 5.20		30	500 Volt Fused	#46341	\$ 8.65
60	#46252 \$ 8.20	#46352 10.00	60	#41242 \$ 8.20	#41342	8.65	
60	Solid Neutral	#47312 9.10	60	500 Volt Fused	#46342	10.95	
100	#45253 \$12.75	#45353 15.50	100	#41243 \$10.95	#41343	12.30	
100	Solid Neutral	#48313 14.60	100	500 Volt Fused	#46343	17.30	
200	#46254 20.00	#46354 26.40	200	#41244 \$19.10	#41344	22.75	
200	Solid Neutral	#47314 22.75	200	500 Volt Fused	#46344	32.80	

TYPE A

"Square D", Industrial Quick Make & Break, Single Throw

250 Volts Fusible				250-500 & 600 Volts Unfused			
Amps.	2 Pole	3 Pole	Price	Amps.	2 Pole	3 Pole	Price
x30	#80251 \$10.90	#80351 \$12.75		x30-60	#81252 \$ 9.55	#81352	\$11.40
60	#86252 13.65	#86352 17.30	60	#81242 11.85	#81342	14.60	
100	#86253 20.90	#86353 22.30	100	#81243 20.00	#81343	21.85	
200	#86254 32.75	#86354 36.40	200	#81244 25.50	#81344	30.95	
x60 Amp. Sw. with 30 Amp. Spacing				(x—250 Volts only).			

30 AMP. TYPE C

"Square D", Industrial, Single Throw

250 Volts		Description		Single Throw	
No.	2 Pole			No.	3 Pole
83251	\$3.20	Quick Make & Break		83351	\$ 5.20
91251	2.65	Not Quick Break		91351	4.00
x90251	7.75	Quick Break Only		x90351	10.00
		(x 60 Amp. Switches with 30 Amp. Clips).			

MOTOR STARTERS

"Square D", Quick Make & Break, Single Throw

Numbers & Types		Amps.	Volts	2 Pole	3 Pole	4 Pole
76251-351-451	Cover Control.....	30	250 V.	\$15.50	\$16.40	\$22.75
76352-76452	"	60	250 V.	22.75	31.75	
76841-76441	"	30	500-600 V.	22.75	31.75	
76842	"	60	500-600 V.	32.75		
69251-351-451	without Cover Cont.....	30	250 V.	13.65	14.60	20.95
69352-69452	"	60	250 V.	20.95	30.95	
69341-69441	"	30	500-600 V.	20.95	30.00	
69342	"	60	500-600 V.	31.00		
75251-351	Time Protective.....	30	250 V.	6.40	6.85	
75341 & SK2054	Time Protective....	30	500-600 V.	11.80	13.65	
No. 98251	For Small AC & DC Motors up to 1/4 H. P. 220 Volts AC..					\$1.85

TYPE "C" SWITCHES

Cutler-Hammer (T-V) Single Throw Industrial Type
Series 4131

250 Volts DC or AC Fusible				500-600 Volts AC Fusible			
Amps.	2 Pole	3 Pole	Price	Amps.	2 Pole	3 Pole	Price
30	4131H2 \$ 3.15	4131H3 \$ 5.15		30	4131H7 \$ 8.55	4131H8 \$ 9.00	
60	4131H3 8.10	4131H4 9.90	60	4131H8 9.90	4131H25 10.80		
100	4131H4 12.60	4131H5 15.30	100	4131H9 14.40	4131H26 17.10		
200	4131H5 19.80	4131H16 26.10	200	4131H10 29.80	4131H27 32.40		
400	4131H6 48.60	4131H17 66.60	400	4131H11 64.80	4131H28 81.00		
125-250 Volt Solid Neut. Fusible				Non-Fusible Type 250 DC 500-600 AC			
Amps.	3 Pole	4 Pole	Price	Amps.	2 Pole	3 Pole	Price
30	4131H30 \$ 6.70	4131H44 \$ 8.10		x30	4131H54 \$ 3.15	4131H58 \$ 4.05	
60	4131H40 9.00	4131H45 11.25	60	4131H55 8.10	4131H59 8.55		
100	4131H41 14.40	4131H46 20.25	100	4131H56 10.80	4131H60 12.15		
200	4131H42 22.50	4131H47 31.50	200	4131H57 18.90	4131H61 22.50		
400	4131H43 63.00	4131H48 81.00		x30 Amp 250 Volts Only			

ENTRANCE SWITCHES, LIGHT TYPE

Cutler-Hammer (T-V)

		2 Pole		3 Pole	
Amps	Description	Numbers	Price	Numbers	Price
30	For Plug Fuses.....	4141H1&2	\$ 1.65	4141H3-4	\$ 2.90
30	2 Blades-2 Fuses.....			4141H5	2.25
30	For Cartridge Fuses.....	4141H6&8	1.80	4141H9-10	3.55
30	For Cartridge Fuses.....	H4141H7	2.70		
30	For 2 Cart. Blades-3 Fuses.....			4141H11	3.25
30	Non-Fusible.....	4141H23	2.35	4141H24	4.15
60	For Cartridge Fuses.....	4141H13	6.65	4141H13-15	7.75
60	For 2 Blades & 2 Fuses.....			4141H16	7.40
100	For Cartridge Fuses.....	4141H18	10.20	4141H19-20	12.55
100	For 2 Blades & 2 Fuses.....			4141H21	11.80

METER SERVICE SWITCHES

Cutler-Hammer (T-V) Without End Walls

Meter Test Type		Live Fuse Type		Without End Walls	
30	For Plug Fuses.....	4307H1&5	\$ 2.75	4307H9	\$ 3.45
30	For Cartridge Fuses.....	4307H2&6	3.05	4307H10	3.75
60	For Cartridge Fuses.....	4307H3&7	8.45	4307H11	9.70
100	For Cartridge Fuses.....	4307H4&8	15.05	4307H12	16.00
Dead Fuse Type					
30	For Plug Fuses.....	4306H1	2.20	4306H3	3.45
30	For Cartridge Fuses.....	4306H4	3.50	4306H6	4.00
60	For Cartridge Fuses.....	4306H8	15.05	4306H9	16.00
100	For Cartridge Fuses.....	4306H10&11	23.95	4306H12	25.70

SAFE-LOCK METER SERVICE SWITCHES

Cutler-Hammer (T-V) Without End Walls

Accessible Main Fuses		Without End Walls			
Test Type					
30	For Plug Fuses.....	4325H1&2	\$ 3.70	4325H3	\$ 4.20
30	For Cartridge Fuses.....	4325H4&5	4.50	4325H6	4.50
60	For Cartridge Fuses.....	4325H7&8	16.80	4325H9	17.70
100	For Cartridge Fuses.....	4325H10&11	25.60	4325H12	27.40
Non-Test Type					
30	For Plug Fuses.....	4327H1&2	3.40	4327H3	3.70
30	For Cartridge Fuses.....	4327H4&5	4.25	4327H6	4.25
60	For Cartridge Fuses.....	4327H7&8	16.00	4327H9	16.90
100	For Cartridge Fuses.....	4327H10&11	24.75	4327H12	25.65

POLYPHASE METER SERVICE SWITCHES

Style & Numbers		End Walls		30 A.	60 A.	100 A.
Meter Test Sealed Fuse Type No. 4315H1-2-3		Yes	\$9.50	\$17.60	\$27.30	\$27.30
Meter Test Accessible Fuse Type No. 4329H18-19-20		No	9.95	20.35	30.00	30.00
Non-Meter Test Accessible Fuse Type No. 4329H25-26-27		No	9.35	18.60	28.25	28.25

UNIVERSAL METER SERVICE SWITCHES

Cutler-Hammer (T-V)

No.	Without End Walls	Price
4311H1		\$3.45
4311H2		3.75
4311H3		4.30
4311H4 & 5		4.80

For Detailed Description See Cutler Hammer (Trumbull Vanderpoel) Catalog.

TROUGHES

Cutler-Hammer (T-V)

2-3 & 4"	5"	7"	9"	10"
45c	50c	62c	80c	88c

SHUTTERS END WALLS

Cutler-Hammer (T-V)

	30 Amp.	60 & 100 Amp.
Single Piece End Wall used with Cabinet.....	\$.30	\$.80
Shutters for Shutter Type End Wall.....	.15	.27
Conduit End Wall.....	.30	.80
Universal End Wall.....	.40	

TYPE "A" SWITCHES
Single Throw—Series 4111

Fusible 250 Volt DC or AC				Fusible 500-600 Volts AC			
Amps.	2 Pole	3 Pole	Price	Amps.	2 Pole	3 Pole	Price
30	4111H1 \$10.80	4111H20 \$12.60		30	4111H11 \$14.40	4111H30 \$18.00	
60	4111H2 13.50	4111H21 17.10	60	4111H12 16.20	4111H31 18.90		
100	4111H3 20.70	4111H22 27.00	100	4111H13 25.20	4111H32 28.80		
200	4111H4 32.40	4111H23 36.00	200	4111H14 39.60	4111H33 45.00		
400	4111H5 63.00	4111H24 81.00		400	4111H15 73.80	4111H34 88.20	
Non-Fusible 250 DC or 500-600 AC							
Amps.	2 Pole	3 Pole	Price	Amps.	2 Pole	3 Pole	Price
30	4111H74 \$ 9.45	4111H54 \$11.25					
60	4111H75 11.70	4111H55 14.60					
100	4111H76 19.80	4111H56 22.60					
200	4111H77 25.20	4111H57 30.60					
400	4111H78 54.00	4111H58 63.00					

Solid Neutral
3 Pole Switches with Solid Neutral
No Extra Charge

Switches

Switches

MOTOR STARTING SWITCHES

Manual Operated		T-V		Amps		Volts		2 Pole	3 Pole	4 Pole
Series	Description									
4151H1	Light Duty Motor Sw. 1/4HP or Less	30	125	\$ 1.65						
9115H3	Motor Switch with Thermal Cutout	30	To 550					\$13.75	\$19.10	
4231H	For infrequent Duty	30	220	8.10				9.95	12.85	
4246H	For infrequent Duty 5 HP.	30	220	12.45				13.05	16.50	
4246H	For infrequent Duty 7 1/2 HP	30	440	18.45				23.40	26.55	
4246H	For infrequent Duty 7 1/2 HP	60	220	17.10				19.45	26.55	
4256	Motor Reversing Sw. Dble. Throw	30	250	13.95				18.90	24.75	
4256	Motor Reversing Sw. Dble. Throw	60	250	17.55				22.05	32.40	
4256	Motor Reversing Sw. Dble. Throw	100	250	29.25				37.35	64.80	

SMALL ENTRANCE SWITCHES
Trumbull Electric Closed or Open Ends

Numbers	Amps.	Volts	Fusing	2 Pole	3 Pole
5790 EW Porc Base	30	125	For 1 Plug Fuse	\$1.65	
5791-2-3-4 & 5893	30	125	" Plug Fuses	1.85	\$3.45
5891-5892 Porc. Base	30	125-250	" " "	1.85	2.40
13640-13641 Kappa	30	250	No Fuse-Slate Base	2.75	4.10
13642-43 & 13743	30	250	For Enclosed Fuses	2.75	4.35
13221-13521 Quick Break	30	250	" " "	3.55	5.20

"DO-ALL" MAIN ENTRANCE SWITCHES

Trumbull Electric Non Meter Test Solid End Wall

16361 to 16368	30	125-250	For Plug Fuses	\$2.70	\$3.45
16371 to 16378	30	"	" Enclosed Fuses	3.05	3.75
16381 to 16388	60	250	" " "	8.45	8.90
16391 to 16398	100	250	" " "	15.05	15.95

"DO-ALL" METER SERVICE SWITCHES

Trumbull Electric For Meters Open End

16300 to 16309	30	125-250	For Plug Fuses	\$ 2.70	\$ 3.45
16315 to 16324	30	"	" Enclosed Fuses	3.05	3.75
16330 to 16338	60	"	" " "	8.45	8.90
16341 to 16348	100	"	" " "	15.05	15.95

ACCESSIBLE FUSE METER SWITCHES

Trumbull Electric With Test Blades Without End Walls

18111	30	125	For 1 Plug Fuse	\$ 3.25	
18211-18311	30	125	" Plug Fuses	3.70	\$4.20
18121	30	125-250	" 1 Enclosed Fuse	3.60	
18221-18321	30	"	" Enclosed Fuses	4.45	4.45
18122-222-322	60	"	" " "	16.80	17.70
18123-223-323	100	"	" " "	25.60	27.50

Without End Walls and Without Test Blades

19111	30	125	For 1 Plug Fuse	\$ 3.05	
19211-19311	30	125-250	" Plug Fuses	3.35	\$3.70
19121	30	"	" 1 Enclosed Fuse	3.60	
19221-19321	30	"	" Enclosed Fuses	4.25	4.25
19122-222-322	60	"	" " "	15.95	16.80
19123-223-323	100	"	" " "	24.75	25.60

SEALED FUSE METER SWITCHES

Trumbull Electric With Test Blades Without End Walls

15827	30	125	For 1 Plug Fuse	\$ 2.20	
28111-28211-28311	30	125	" Plug Fuses	3.25	\$ 3.45
28121	30	125	" 1 Enclosed Fuse	3.50	
28221-28321	30	125-250	" Enclosed Fuses	3.75	4.00
28122-28222-28322	60	"	" " "	15.05	15.95
28123-223-323	100	"	" " "	23.85	25.60

Without Test Blades

29111	30	125	For 1 Plug Fuse	\$ 2.85	
29211-29311	30	125-250	" Plug Fuses	2.85	\$ 3.00
29121	30	125	" 1 Enclosed Fuse	3.15	
29221-29321	30	250	" Enclosed Fuses	3.40	3.55
29122-222 & 322	60	250	" Enclosed Fuses	14.15	15.05
29123-223 & 323	60	250	" Enclosed Fuses	22.95	23.85

UNIVERSAL METER SERVICE SWITCHES

Trumbull Electric Without End Walls

9771-123	30	125	For 1 Plug Fuse	\$3.45	
972-123	30	125	For 1 Plug Fuse	4.30	
973-333	30	125	For 2 Plug " Solid Neu.	\$3.75	
975-333	30	125	For 3 Combinations	4.85	4.85
979-333	30	125	For 4 Combinations	4.85	4.85

POLYPHASE METER SWITCHES

Trumbull Electric

Series Nos.	Style	30 Amp.	40 Amp.	60 Amp.
15321-15623	Acc. Fuse-Test Conn.	\$11.60	\$15.00	\$21.10
17321-17623	Acc. Fuse without Test Conn.	10.95	11.60	19.40
26321-26623	Sealed Fuse with Test Conn.	10.40	14.00	17.60
93123-61-31	No End Wall-Page 50	12.15		16.65

Series Nos.	Style	3 Pole	4 Pole
15321-15623	Acc. Fuse-Test Conn.	\$30.80	\$33.70
17321-17623	Acc. Fuse without Test Conn.	29.05	30.80
26321-26623	Sealed Fuse with Test Conn.	27.30	50.15
93123-61-31	No End Wall-Page 50		26.15

END WALLS, SHUTTERS, TROUGHS, ETC.

Trumbull Electric

End Wall One Piece for Standardized Switches	30 A.	60 A.	100 A.
End Wall One Piece for Polyphase Switches	\$.30	\$.70	\$.70
Shutters for End Walls for Standardized Switches	.40	1.00	1.15
Shutters for End Walls for Polyphase Switches	.15	.30	.30
Troughs 2-3" & 4	\$.40	5" \$.45	6" \$.50
		7" \$.55	

TYPE "A" SWITCHES

Trumbull Electric Single Throw, Quick Make & Break

Amps.	2 Pole	3 Pole	2 Pole	3 Pole
30	\$72221 \$10.80	\$72321 \$12.60	\$36221 \$ 9.45	\$36321 \$11.25
60	72222 13.50	72322 17.10		
100	72223 20.70	72323 27.00		
200	72224 32.40	72324 36.00		

Amps.	2 Pole	3 Pole	2 Pole	3 Pole
30	\$72251 \$14.40	\$72351 \$18.00	\$36251 \$10.70	\$36351 \$13.95
60	72252 16.20	72352 18.90	36252 10.70	36352 14.40
100	72253 25.20	72353 28.80	36253 19.80	36353 21.60
200	72254 39.60	72354 45.00	36254 23.25	36354 30.60

TYPE "C" SWITCHES

Trumbull Electric Single Throw, Quick Break Only

Amps.	2 Pole	3 Pole	2 Pole	3 Pole
30	\$40221 \$ 5.40	\$40321 \$ 6.75	\$20221 \$ 4.95	\$20321 \$ 6.30
60	40222 8.10	40322 9.90		
100	40223 12.60	40323 15.30		
200	40224 19.80	40324 26.10		

Amps.	2 Pole	3 Pole	2 Pole	3 Pole
30	\$40251 \$ 9.00	\$40351 \$ 8.55	\$20251 \$ 7.65	\$20351 \$ 8.10
60	40252 9.90	40352 10.80	20252 8.10	20352 8.55
100	40253 14.40	40353 17.10	20253 10.80	20353 12.15
200	40254 28.80	40354 32.40	20254 18.90	20354 22.50

SMALL 30 AMP. MIDGET & TYPE "OO"

Westinghouse Residence Type

Amps.	Fused	2 Pole	3 Pole	2 Pole	3 Pole
Midget-Solid Neutral-1 Blade-1 Fuse 62612 &		\$2613 \$1.65			
Type 00 Fusible For Plug Fuses 125-250 V.		\$60969 1.85		\$60961 \$3.00	
" " Fusible Solid Neut. For Plug Fuses					
" 125-250 Volts		\$60091 1.75		\$62328 2.70	
" " Fusible Solid Neut. For Plug Fuses					
" 3 Blades				\$60062 3.00	
" " Non-Fusible 2 Blades 250 Volt		\$60090 2.55		\$62352 2.70	
" " Non-Fusible 3 Blades 250 Volt				\$62365 4.00	
" " Fusible For Cart. Fuses 250 Volt		\$60089 2.45		\$62363 4.30	
" " Fusible For Cart. Fuses Solid Neut.				\$62351 3.15	
" " Fusible For Cart. Fuses 3 Blade				\$62364 4.30	
Type WK-45 Fusible For Cart. Fuses 3 Blade				\$545101 5.25	
Type WK-45 Solid Neut. Cart. Fuses 250 V.				\$545341 5.20	
Type WK-45 Non-Fusible Cart. Fuses 250 V.				\$545001 4.15	

METER SERVICE SWITCHES

Westinghouse Type "WK-54" Without End Walls

Amps.	Fused	2 Pole	3 Pole	2 Pole	3 Pole
30	Plug	\$61140 \$ 2.20		\$60224 \$ 2.70	\$64442 \$ 3.45
30	"	\$61143 3.25	\$61142 \$3.45	\$6441 2.70	\$60225 3.45
30	Enclosed	\$61639 3.50		\$54371 3.05	\$60227 3.75
60	"	\$61145 3.75	\$61144 4.00		\$6448 3.75
60	"	\$61150 15.05	\$61151 16.00	\$6461 8.45	\$60229 8.90
100	"	\$61152 23.85	\$61153 25.50	\$6463 15.05	\$60232 15.95

POLYPHASE METER SWITCHES

Westinghouse "WK-54"

30 Amp.	No.	60997 With End Wall \$11.50	No.	60266 Less End Wall \$11.00
60	"	60998 " " 17.50	"	60267 " " 16.50
100	"	60999 " " 27.50	"	60268 " " 26.00

ACCESSIBLE FUSE TYPE

Westinghouse "WK-65" Without End Walls

Amps.	Fused	2 Pole	3 Pole	2 Pole	3 Pole
30	Plug	\$65000 \$ 3.25		\$65010 \$ 3.05	
30	"	\$65001 3.70	\$65002 \$4.15	\$65011 3.35	\$65012 \$3.70
30	Enclosed	\$65055 3.60		\$65063 3.60	
30	"	\$65003 4.45	\$65004 4.45	\$65013 4.25	\$65014 4.25
60	"	\$65005 16.80	\$65006 17.70	\$65015 15.95	\$65016 16.80
100	"	\$65007 25.60	\$65008 27.40	\$65017 24.75	\$65018 25.60

POLYPHASE ACCESSIBLE METER SWITCHES

Westinghouse "WK-65"

30 Amp.	3 Pole	without End Wall	No.	65100 \$11.20	No.	65103 \$10.85
60	"	"	"	65101 20.35	"	65104 18.60
100	"	"	"	65102 30.00	"	65105 28.15

UNIVERSAL

Westinghouse "WK-57" Meter Service Switches Without End Walls. Sealed Main Fuses.

All 30 Amp. 125 Volt Standardized	For Full Details See	#57924.....	\$3.45
	Westinghouse	57925.....	4.65
	Switch Catalog #282	57926.....	3.78
		57928.....	5.20
		57931.....	5.20

Westinghouse

		30 Amp.	60 & 100 Amp.
One Piece Meter Trims.....		\$0.30	\$0.50
Blank End Wall or Shutter Type End Wall.....		.30	.50
Shutter Type Meter Trim or Adaptor Trim.....		.15	.30
New Universal Trim with slide.....		.30	.35
Replacement Plate or Adapting Plate.....		.15	
Wiring Trough—2-3 & 4' long.....	\$0.40 5' .45 6' .50 7' .55 8' .60		
Fuse Receptacle #R57252.....			Less Fuses, \$1.25

Industrial Westinghouse "WK-62" Type "C"

250 Volts Fusible				500 Volts AC Fusible				
Amps.	2 Pole		3 Pole	2 Pole		3 Pole		
30.....	#62100	\$ 5.40	#62101	\$ 6.75	#62200	\$ 9.00	#62201	\$ 8.55
60.....	#62103	8.10	#62104	9.90	#62203	9.10	#62204	10.50
100.....	#62106	12.15	#62109	13.30	#62206	28.40	#62209	32.10
150.....	#62109	18.90	#62110	26.10	#62209	28.80	#62210	32.40
250-500 Volts Non-Fusible				600 Volts Non-Fusible				
Amps.	2 Pole		3 Pole	3 Pole		4 Pole		
30.....	#62047	\$ 7.65	#62048	\$ 8.10	#62054	\$ 13.05	#62055	\$ 18.90
60.....	#62013	8.10	#62014	8.55	#62057	17.15	#62058	24.10
100.....	#62016	10.50	#62017	12.15	#62059	28.10	#62061	40.10
150.....	#62019	18.90	#62020		#62062	30.10	#62063	45.10

		250 Volts		Fusible		500 Volts		AC Fusible	
Amps.		2 Pole	3 Pole	2 Pole	3 Pole	2 Pole	3 Pole	2 Pole	3 Pole
30		\$66100	\$110.80	\$66101	\$122.60	\$66154	\$144.40	\$66155	\$118.00
60		\$66103	13.50	\$66104	17.10	\$66157	16.20	\$66158	18.90
100		\$66107	20.70	\$66108	27.00	\$66160	26.00	\$66161	29.80
200		\$66109	32.40	\$66110	36.00	\$66163	39.60	\$66164	45.00
		250-500 Volts		Non-Fusible		600 Volts		Non-Fusible	
Amps.		2 Pole	3 Pole	2 Pole	3 Pole	3 Pole	4 Pole		
30		\$66050	\$11.70	\$66051	\$13.95	\$66048	\$17.10	\$66049	\$21.00
60		\$66053	11.70	\$66054	14.40	\$66052	17.75	\$66055	21.00
100		\$66057	18.00	\$66058	21.60	\$66056	25.50	\$66059	28.80
200		\$66136	25.20	\$66137	30.60	\$66060	33.30	\$66061	46.80

Noark Closed Ends

Numbers	Amps.	Volts	Fused For	2 Pole	3 Pole
8283.....	30	125	For Plug Fuses.....	\$1.65	.....
8383-8483-8583.....	30	125	"	1.80	\$2.50
8683-8693.....	30	125	* Enclosed * Quick Break.	1.80	3.15

Noark Sealed Service SECO Without End Walls

		Test Type				Non Test Type			
		2 Pole		3 Pole		2 Pole		3 Pole	
Amps.	Fused For	No.	Price	No.	Price	No.	Price	No.	Price
30A	Plug.....	9543	\$3.25	9523	\$4.45	8543	\$2.85	8523	\$3.00
30A	Enclosed.....	9563	3.75	9533	4.00	8563	3.40	8533	3.55
30A	Plug & Enc.....	9573	3.50			8573	3.15	8593	2.40
60A	Enclosed.....	9566		9536	15.95	8566		8536	15.05
60A	".....	9576	14.15			8576	13.30		
100A	".....	9561	23.85	9531	25.60	8561	23.00	8531	23.85

Amps.	Fused For	Test Type				Non Test Type			
		2 Pole		3 Pole		2 Pole		3 Pole	
		No.	Price	No.	Price	No.	Price	No.	Price
30A	Plug.....	9343	\$3.25			8343	\$3.05		
30A	".....	9353	3.70	9323	\$4.15	8353	3.40	8323	\$3.70
30A	Enclosed.....	9363	4.50	9333	4.45	8363	4.25	8333	4.25
60A	".....	9366	16.80	9336	17.70	8366	15.95	8336	16.80
100A	".....	9361	25.60	9331	27.40	8361	24.75	8331	25.60

	No. 971123	—Without End Walls.....	\$3.45
	" 9723	" " " "	4.65
	" 972123	" " " "	4.30
	" 973333	" " " "	3.75
	" 9753 & 9793	" " " "	5.20
	" 975333-979333	" " " "	4.85

For Detailed Description, see Noark Catalog

Amps.	Fused For	2 Pole Numbers	Price	3 Pole Numbers	Price
30A	Plug.....	913123-011123	\$ 2.70	912333-914333	\$ 3.45
30A	Enclosed.....	923123-921223	3.05	922333-924333	3.75
60A	".....	923126-921226	8.45	925336	8.90
100A	".....	923121-921231	15.05	925331	15.95

Noark Fusible—Quick Break

Amps.	250 Volts Fusible			500 Volts AC Fusible		
	2 Pole	3 Pole	3 Pole	2 Pole	3 Pole	3 Pole
30	No. 8223	\$ 2.70	8233	No. 8423	\$ 9.00	8433
60	8226	8.10	8236	8426	9.90	8436
100	8221	12.60	8231	8421	14.40	8431
200	8222	19.80	8232	8422	28.50	8432
400	8224	48.60	8234	8424	66.60	8434

Amps.	Volts	2 Pole		3 Pole		4 Pole	
		No.	Price	No.	Price	No.	Price
30	250	8723	\$ 2.70	8733	\$ 4.05	8743	\$ 8.10
30	500 AC	8723	7.65	8633	8.10	8643	10.80
60	250-500	8626	8.10	8636	8.55	8646	13.50
100	250-500	8621	10.80	8631	12.15	8641	20.70
200	250-500	8622	18.90	8632	22.50	8642	37.80
400	250-500	8624	39.60	8634	54.00	8644	86.40

Single Piece End Wall for 30 Amp. Switches.....	\$.30	For 60 & 100 Amp.....	\$.80
Shutter for 3015	60 & 10030
Universal End Wall No. 99910340		
Blanking Side No. 998103-99820315		
Trough-3 & 4' \$.40-6' \$.45-7'50	8'-9'80
Cabinet Fuse Block No. 992413	1.25		

Noark Switches Without End Walls

125-250 Volts			Main Entrance		"Acce" Quad Break		"Seco" Quad Break	
"Doall" & 3 Wire			Accessible		Sealed Fuses		Sealed Fuses	
Amps.	No.	Price	No.	Price	No.	Price	No.	Price
30A.....	851233	\$ 4.70	77033	\$10.50	77533	\$10.40	77533	\$10.40
60A.....	851236	11.70	77036	18.60	77536	15.05	77536	15.05
100A.....	851231	19.20	77031	28.25	77531	24.75	77531	24.75
Meter Service								
30A.....	931233	\$11.05	67033	\$11.15	67533	\$11.05	67533	\$11.05
60A.....	931236	16.65	67036	20.35	67536	16.80	67536	16.80
100A.....	931231	26.15	67031	30.00	67531	26.50	67531	26.50

Noark Doall Without End Walls

Amps.	Fused For	2 Pole		3 Pole	
		Numbers	Price	Numbers	Price
30	Plug Fuses	813123-811123	\$ 2.70	812333-814333	\$ 3.45
30	Enclosed Fuses	853123-851223	3.75	852333-854333	4.30
60	" "	853126-851226	8.45	855336	8.90
100	" "	853121-851221	15.05	855331	15.95

Noark Fusible—Quick Break

Amps.	Voits	3 Pole-2 Poles	4 Pole-3 Poles	5 Pole-4 Poles
		No. Price	No. Price	No. Price
30	125-250	8133 \$ 3.15	8143 \$ 8.10	8153 \$ 9.00
60	" "	8136 9.00	8146 11.25	8156 19.80
100	" "	8131 14.40	8141 19.80	8151 35.58
200	" "	8132 22.50	8142 31.50	8152 50.40
400	" "	8134 63.00	8144 81.00	8154 120.60

Bulldog

125 V.-2 Pole-One Blade		No. 111 & 211	BT-TE-TF	
"	2	"	Two	"
"	3	"	Solid Neutral	\$ 1.80
"	3	"	3 Plug Fuses	TE-211S
"	3	"	Solid Neutral	TE-311B
"	3	"	3 Plug Fuses	TE-311S
250	2	"	Two	TE-311SG
"	2	"	2 F-221S Conn.	8.10
"	3	"	3 F-321S	5.40
"	3	"	3 F-321S	TF-321S
"	3	"	Solid Neutral	TF-321SG
500-600 V.-3 Pole-Three Blade	3	Fuse Conn.	TF-351S	12.60
250-600 "	3	"	TN-261S	5.40
"	3	"	TN-261S	7.20
"	3	"	TN-361S	10.80
Motor Starter	3	"	TJM-321S & TJM-321SU	9.00

Bulldog Single Throw Fusible Quick Make & Break

Amps.		2 Pole	250 Volts DC & AC	3 Pole
30	125 Volt only	JF211S	\$ 2.70	JF311S \$ 4.40
30	Porc. Base.....	JF221S	3.15	JF321S 5.15
30	End Plates.....	JF221P	3.15	JF321P 5.15
60	" " " "	JF222	5.19	" " " "
60	" " " "	JF222	8.10	JF322 " 9.90
100	" " " "	JF223	12.60	JF323 15.30
200	" " " "	JF224	19.80	JF324 26.10
400	" " " "	SF223	48.60	SF325 66.00

25 Volt only.....
Port. Base.....

30 Port. Base.....				
30 End Plates.....				
30 State Base.....	FJ351	\$ 8.50	FJ451	\$ 13.50
60 " " " " " "	FJ352	10.80	FJ452	14.40
100 " " " " " "	FJ353	17.10	FJ453	29.80
200 " " " " " "	FJ354	32.40	FJ454	46.80
400 " " " " " "	SF355	81.00	SF455	126.00

Bulldog Single Throw Not-Fusible

Amps.		2 Pole	3 Pole
30	250 Volts	IN221S \$ 3.15	IN321S \$ 4.15
30	250-500-600 Volts	IN251 \$ 7.65	IN351 \$ 8.15
60		IN252 8.10	IN352 8.60
100		IN253 10.80	IN353 12.15
200		IN254 17.60	IN354 22.50
400		SN255 36.00	SN355 46.80

		4 Pole
30	250 Volts	IN421S \$ 8.05
30	250-500-600 Volts	IN451 10.85
60		IN452 13.85
100		IN453 20.75
200		IN454 47.85
400		SN455 69.00

Switches

30 AMP. SERVICE ENTRANCE SWITCHES

Bulldog

2 Pole-125 Volt-Fusible-For Plug Fuses No. JE211 S & P.....	\$1.65
2 " 125 " " " Quick Make & Break JF211S.....	2.70
2 Pole-250 Volt-Fusible-For Cart. Fuses SF221 S & P.....	2.50
2 Pole-250 Volt-Not Fusible-For Cart. Fuses SN221 S & P.....	2.70
3 Pole-125 Volt-Fusible-For Plug Fuses No. JE311 SP & PG.....	3.00
3 Pole-125 Volt-Fusible-For Plug Fuses Quick Make & Break JF311S	4.35

"TYPE A"

Bulldog Single Throw Quick Make and Break

		2 Pole		3 Pole	
		Number	Price	Number	Price
250 Volts Fusible					
30 Amp.		SF-221	\$ 10.80	SF-321	\$ 12.60
60 "		SF-222	13.50	SF-322	17.10
100 "		SF-223	20.70	SF-323	27.00
200 "		SF-224	32.40	SF-324	36.00
400 "		SF-225	63.00	SF-325	81.00
500-600 Volts Fusible					
30 Amp.			For	SF-351	18.00
60 "			2 Pole	SF-352	19.90
100 "			See 600 Volt	SF-353	28.80
200 "			Fusible	SF-354	45.00
400 "			Below	SF-355	88.00
250-500-600 Not Fusible					
30-60 Amp.		SN-251	\$11.70	SN-351	13.95
100 "		SN-253	19.80	SN-353	21.60
200 "		SN-254	25.30	SN-354	30.60
400 "		SN-255	54.00	SN-355	63.00
600 Volts Fusible					
30 Amp.		SF-261	16.20	SF-361	19.30
60 "		SF-262	17.10	SF-362	19.80
100 "		SF-263	27.00	SF-363	31.70
200 "		SF-264	42.00	SF-364	48.60
400 "		SF-265	93.00	SF-365	122.00
600 Volts Not Fusible					
30-60 Amp.		SN-261	12.60	SN-361	16.20
100 "		SN-263	20.25	SN-363	24.75
200 "		SN-264	26.50	SN-364	33.75
400 "		SN-265	65.50	SN-365	87.75
				4 Pole	
				Number	Price
250 Volts Fusible				SF-421	\$ 16.20
30 Amp.				SF-422	21.60
60 "				SF-423	36.00
100 "				SF-424	54.00
200 "				SF-425	108.00
400 "					
500-600 Volts Fusible					
30 Amp.				SF-451	21.60
60 "				SF-452	23.40
100 "				SF-453	47.80
200 "				SF-454	57.60
400 "				SF-455	126.00
250-500-600 Not Fusible					
30-60 Amp.				SN-451	19.80
100 "				SN-452	23.80
200 "				SN-454	40.00
400 "				SN-455	103.50
600 Volts Fusible					
30 Amp.				SF-461	23.40
60 "				SF-462	25.20
100 "				SF-463	39.60
200 "				SF-464	59.40
400 "				SF-465	144.00
600 Volts Not Fusible					
30-60 Amp.				SN-461	21.75
100 "				SN-463	29.70
200 "				SN-464	43.65
400 "				SN-465	120.60

COMPENSATOR SWITCHES "A"

Bulldog Quick Make & Break Fusible

Amps.		250 Volt AC			
		3 Pole		4 Pole	
30 A.	SF321 C	\$16.20	SF421 C	\$ 21.60	
60 A.	SF322 C	20.25	SF422 C	26.10	
100 A.	SF323 C	31.50	SF423 C	46.50	
200 A.	SF324 C	45.90	SF424 C	64.80	
400 A.	SF325 C	94.50	SF425 C	129.00	

Amps.		500-800 Volts AC			
		3 Pole		4 Pole	
30 A.	SF351 C	\$30.70	SF451 C	\$32.40	
60 A.	SF352 C	21.00	SF452 C	36.00	
100 A.	SF353 C	33.75	SF453 C	61.20	
200 A.	SF354 C	50.40		.....
400 A.	SF355 C	105.60		.....

MOTOR STARTERS

Bulldog

				3 Pole
30	Amp-Type	C-Port.	Base-110 to 440 Volt	JM-321S \$ 6.75
30	"	C Slate	" 440 & 550 "	JM-351 11.70
30	"	" A	250 Volt	MF-321 17.00
30	"	" A	500 "	MF-351 23.75
60	"	" A	250 "	MF-322 23.50
60	"	" A	500 "	MF-352 28.80

4 Pole		
30 Amp-Type C-Pore.	Base-110 to 440 Volt	.....
30 " " C-Slate	440 & 550 "	.....
30 " " A	350 Volt	MF-421 \$22.80
30 " " A	500 "	MF-451 35.25
60 " " A	350 "	MF-422 29.45
60 " " "	" "	

NOTE: For Bulldog Switches not listed deduct 10% from Bulldog List.

SMALL ENTRANCE SWITCHES

Columbia, 30 Amp.

Description				3 Pole
Single Fused	Single Blade	125 Volt-Plug Fused		330-321
Double	Double	125 " " "		1990
"	"	" " " "		3930
"	"	" 250 " Cartridge Fused		322
"	"	" 250 " "		422

Description				3 Pole
Single Fused-Single Blade	125 Volt-Plug Fused			1931-3
Double	Double	125 " " "		3930-1
"	"	" " " "		322
"	"	" 250 " Cartridge Fused		422
"	"	" 250 " "		422

BRANCH CIRCUIT ENTRANCE SWITCHES

Columbia

30 Amp. Series	2		4		6		8	
	Circuit 2 Pole	2 Pole	Circuit 3 Pole	3 Pole	Circuit 2 Pole	3 Pole	Circuit 3 Pole	3 Pole
2401 to 2406	\$4.00	\$5.00	\$5.35		\$6.00	\$6.35	\$7.35	
3401 to 3406	5.00	6.35	6.65		7.35	8.70	9.75	
3501 to 3506	4.85	6.00	6.35		7.00	7.70	8.70	

INDUSTRIAL SWITCHES

Columbia

Series 70 Type C Fusible					
Amps		2 Pole		3 Pole	
		Number	Price	Number	Price
250 Volts	30A	C7001	\$ 9.40	C7002	\$11.60
Fusible	60A	C7004	12.10	C7005	15.75
Quick Make	100A	C7007	19.10	C7008	24.00
& Break	200A	C7010	28.35	C7011	35.00

Series 70 Type A Fusible					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
250 Volts	30A	A7001	\$10.45	A7002	\$13.00
Fusible	60A	A7004	13.30	A7006	17.55
Quick Make	100A	A7007	21.75	A7008	27.90
& Break	300A	A7010	31.00	A7011	39.00

Series 71-500 Volts Fusible					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
500 Volts Quick Make & Break	30A	7101	\$13.60	7102	\$15.75
	60A	7104	14.15	7105	16.10
	100A	7107	23.80	7108	27.00
	200A	7110	38.25	7111	42.80

Series 73-500 Volts Unfused						
500 Volts Quick Make & Break	Amps		2 Pole		3 Pole	
		Number	Price	Number	Price	
	30A	7301	\$11.00	7302	\$13.00	
	60A	7304	11.00	7305	13.00	
	100A	7307	17.35	7308	19.60	
	200A	7310	24.00	7311	28.80	

Series 72-600 Volts Fusible					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
600 Volts	30A	7201	\$14.90	7202	\$16.25
Quick Make	60A	7204	14.80	7205	15.75
& Break	100A	7207	24.50	7208	27.00
	300A	7210	39.00	7211	43.00

Series 74-600 Volts Unfused					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
600 Volts	30A	7401	\$11.90	7402	\$14.50
Quick Make	60A	7404	12.60	7405	15.10
& Break	100A	7407	19.20	7408	21.70
	200A	7410	25.50	7411	29.60

Series 20-250 Volts Fusible						
Amps			2 Pole		3 Poles	
		Number	Price	Number	Price	
Quick Break Only 250 Volts	30A	2022	\$ 5.15	2023	\$ 6.95	
	60A	2025	6.95	2026	8.00	
	100A	2028	10.95	2029	13.50	
	200A	2031	19.35	2032	24.35	

Series 23-250-500 Volts Unfused					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
Quick Break	30A	2322	\$ 4.85	2323	\$ 6.35
Only	60A	2325	9.10	2326	9.70
250 Volts	100A	2328	11.60	2329	12.70
	200A	2331	19.40	2332	23.60

Series 30—Quick Break—250 Volts For Meter Trims				
	30 Amp.		60 Amp.	
2 Poles.....	3022	\$5.65	3025	\$ 8.00
3 Poles.....	3023	7.65	3026	10.00
	100 Amp.		300 Amp.	
2 Poles.....	3028	\$12.70	3031	\$18.30
3 Poles.....	3029	16.30	3032	24.30

MOTOR STARTING SWITCHES

Columbia, 250 Volts

		2 Pole	3 Pole
30 Amp. Motor Start Switch.....	6001	\$12.70	6002 \$17.00
60 " " " "	6004	13.80	6005 17.40
			4 Pole
30 Amp. Motor Start Switch.....			6003 \$20.00
60 " " " "			6006 27.10



STEELTUBES [E. M. T.]* has the same inside diameter as heavy conduit. Made in three sizes ($\frac{1}{2}$ ", $\frac{3}{4}$ " and 1") with diameters and wall thickness shown above. One coupling furnished with each ten-foot length.

10

STEELTUBES Advantages

- 1—Saves thread-cutting
- 2—Bends easily
- 3—Light—handles easily
- 4—Takes any fitting
- 5—Speeds up the job
- 6—Resists corrosion
- 7—Costs less
- 8—Standard price
- 9—Carries Underwriters' Label
- 10—Local stocks always available.

BEFORE and AFTER ...an object lesson in corrosion

THE pictures tell the story. Two pieces of conduit—before a 96 hour 5% sulphuric-acid test [in the circle]. After the test in the larger view. STEELTUBES [E. M. T.]* at the left in both.

Note the corrosion of the Bessemer steel in the heavy conduit and the resistance offered by the close-grained, cold-rolled, openhearth steel of STEELTUBES. Hardly a trace of corrosion after a test equivalent to years of exposure. It is this corrosion resistance of the basic metal itself which makes STEELTUBES such a marked improvement.

Have you seen a sample of STEELTUBES? Let us send you one, so you can make this test for yourself.

Electrical Division

STEEL AND TUBES, INC.

Cleveland, Ohio

(A subsidiary of Republic Iron & Steel Co.)

★ STEELTUBES Electrical Metallic Tubing is threadless, strong, light and easy to handle. Costs less to buy. Saves time and money on the job.

Steeltubes

What's Worth Having Is Worth Writing For

Our 1930 Sales and Advertising Plan for Contractors will be released around the first of January. It's the greatest we have ever contributed to the industry, and it will be mailed free to you for the asking. Thousands of successful contractors throughout the United States can look back to successful records with our plans in the past, and many of them have already written in to secure their copy of this new plan as early as possible. What's worth having is worth writing for. That's why you should write in now to insure an early delivery of our 1930 plan.

AMERICAN BLOWER CORPORATION, DETROIT, MICHIGAN
CANADIAN SIROCCO CO., LIMITED, WINDSOR, ONTARIO
BRANCH OFFICES IN ALL PRINCIPAL CITIES



AMERICAN BLOWER CORP.
6600 Russell St., Detroit, Mich.

C O U P O N

Please enter my name on your list
to receive an early copy of your
1930 Sales and Advertising Plan.

Name _____

Firm _____

Address _____

(324)

Wadsworth

30 Amp. Switches		30 Amp. Switches		30 Amp. Switches		30 Amp. Switches	
No.	Price	No.	Price	No.	Price	No.	Price
3	\$4.90	223	\$2.40	1203	\$3.95	2204	\$6.55
8	1.90	224	3.00	1212	4.00	2312	4.05
12	1.00	238	3.75	1223	4.45	2323	4.25
15	1.25	241	5.05	1250	3.30	2330	9.15
17	3.30	242	4.70	1322	4.15	2334	9.85
21	3.30	243	5.05	1323	4.75	2351	3.80
25	2.20	244	4.70	1401	4.10	2441	6.55
25T	3.10	271	4.00	1402	3.65	2461	6.55
26	2.65	272	4.00	1403	3.95	2462	6.20
27	2.50	273	4.70	1401T	4.60	2463	6.55
30	1.55	274	4.40	1402T	4.05	2464	6.20
31T	2.75	284	4.80	1403T	4.25	2534	6.75
33	1.65	292	4.00	1411	4.50	2632	3.25
33T	2.90	294	5.35	1411T	5.15	2633	4.65
34	2.50	322	6.20	1412	3.95	2639	4.65
39	3.75	331	4.85	1412T	4.35	3032	11.15
99	.10	332	6.55	1423	4.40	3033	12.00
100	.10	340	4.75	1423T	4.85	3532	9.10
101	.50	341	5.05	1450	3.30	3533	10.00
131	3.90	330	3.20	1450T	3.80	3534	13.30
132	3.30	362	4.15	1451	3.30	3539	10.00
133	3.90	370	4.15	2223	2.05	3632	16.80
141	4.15	372	4.95	2202	4.50	3633	21.15
142	3.75	380	4.65	2202T	4.90	3634	22.05
143	4.15	382	4.70	2203	4.50	3639	21.10
144	4.55	392	5.05	2203T	4.90	8531	8.90
145	4.95	440	6.20	2212	4.75	8532	8.45
151	3.40	441	6.55	2212T	5.15	8533	9.75
152	3.00	443	6.55	2223	4.75	8534	12.45
153	3.40	461	6.55	2223T	5.15	9539	15.45
154	4.45	462	6.20	2230	10.40	9531	15.45
211	4.15	463	6.55	2231	11.25	9532	13.70
212	3.75	464	6.20	2250	3.85	9533	15.45
213	4.15	633	5.35	2250T	4.25	9534	17.75
214	3.75	734	11.15	2251	3.85	9539	15.45
221	2.65	1013	4.20	2251T	4.25	9862	8.45
222	3.00	1014	6.10	2254	6.20	9863	8.90
		1202	3.65			9864	13.90

Wadsworth

60 Amp. Switches		100 Amp. Switches		200 Amp. Switches	
No.	Price	Number	Price	Number	Price
161	\$10.45	10	\$12.15	20	\$16.20
162	9.60	102	15.70	522	19.80
163	9.15	110	16.55	523	27.95
164	11.80	111	16.55	722	37.05
171	9.35	112	15.70	723	51.90
172	9.15	113	18.95	724	57.35
503	11.45	513	17.25	729	52.00
1024	13.30	1033	11.55	1042	14.20
1762	16.30	1034	16.50	1043	22.00
1763	22.75	1712	27.35	1044	31.35
1764	21.45	1713	35.40	2022	18.15
1769	21.70	1714	35.00	2023	21.45
1800	15.70	1719	30.90	2024	40.85
1802	16.55	1900	24.35	2029	19.80
1803	17.40	1902	25.20	2812	11.55
1812	17.40	1903	26.10	2813	14.65
1850	19.10	1912	26.10	2819	15.90
1854	20.90	1930	28.70	3212	10.20
1842	17.40	1934	30.50	3213	11.55
1843	18.25	1942	26.10	3522	27.20
1851	16.55	1943	27.90	3523	31.15
2030	15.65	1951	26.10	3524	43.15
2034	17.40	2130	25.20	3529	31.15
2042	15.70	2134	26.10	3622	41.60
2043	16.55	2142	24.40	3623	47.35
2051	14.80	2148	26.10	3624	53.20
2064	13.30	2151	24.40	3829	47.35
2861	8.45	2614	25.60	4603	54.45
2862	8.00	3512	14.65	4643	59.40
2863	9.30	3513	17.75	4630	59.75
2869	9.30	3514	25.60	4634	64.70
3162	15.95	3519	17.75	4734	49.75
3163	17.75	3612	24.85	4743	44.50
3262	8.00	3613	31.95		
3263	8.45	3614	35.90		
3562	9.75	3619	31.95	4942	55.45
3563	11.55	8511	14.65	643	67.65
3564	13.75	8512	12.45	742	61.65
3660	11.55	8513	15.55	743	75.13
3662	17.05	8514	27.50	744	91.30
3663	22.05	8519	15.55	749	75.15
3664	24.00	9511	29.30	1052	36.30
3669	22.05	9512	24.85	1053	47.85
8561	9.30	9513	29.30	1054	66.00
8562	8.90	9514	29.95	2542	49.50
8563	10.20	9519	29.30	2543	61.00
8564	14.20	9812	10.65	2544	86.65
8569	10.20	9813	12.00	3542	54.45
9561	18.55	9814	21.45	3543	78.40
9562	14.65			3544	94.05
9563	18.55			3549	78.35
9564	23.25			4833	99.00
9569	18.55			4830	129.35
				4834	137.55
				4843	112.20
				4931	113.00
				4943	101.00

EXTRA END WALLS—SHUTTERS—TRIMS—ETC.

Wadsworth		Type of Trim		Knock-out & Shut-	
For 30 Amp.	125 Volt Switches	Flat	Extended Shutter	Shutter	ter
30	250	30	50	30	17
60	250	50	85	45	25
60	250	75	90	50	30
100	250	82	1.00	82	45
100	250	90	1.10	90	50
200	250	1.00	1.15	1.00	80
200	250	1.10	1.25	1.10	85

Murray Switches

ENTRANCE SWITCHES

With End Wall		Description		2 Pole		3 Pole	
Amps.	Volts	For Plug Fuses	1 Blade 1 Fuse	No.	Price	No.	Price
30	125	"	"	231	\$ 1.65	230	\$2.25
30	125-250	"	"			831	2.10
30	125-250	For 2 Cartridge Fuses				830	3.55
60	250	For 3 Cart. Fuses-3 Phase-3 Wire				760	17.40
60	250	"	"			769	20.00
100	250	"	"			710	29.05
100	250	"	"			712	29.95
200	250	"	"			720	60.75
200	250	"	"			722	68.85

ACCESSIBLE MAIN FUSE SWITCHES

Meter Test Type		Description		2 Pole		3 Pole	
Amps.	Volts	For Plug Fuses	One Fuse	No.	Price	No.	Price
30	125	For Plug Fuses	One Fuse	755	\$ 3.65		
30	125	"	"	748	3.95	756	\$ 4.45
30	250	"	"	738	4.20		
60	250	"	"	737	4.85	742	4.85
60	250	"	"	766	15.95		
60	250	"	"	764	16.85	765	17.70
100	250	"	"	718	25.60	719	27.40

Meter Test		3 Phase		3 & 4 Wire Type		Without End Walls	
Amps.	Volts	For 3 Cart. Fuses-3 Phase-3 Wire		No.	Price	No.	Price
60	250	"	"			767	\$19.90
60	250	"	"			768	23.00
100	250	"	"			711	30.00
100	250	"	"			714	32.45
200	250	"	"			721	64.80
200	250	"	"			723	72.90

With Branches Combined

30	125	For Plug Fuses-2 Branches	780	\$5.70	782	\$6.50
30	125	" " " 1	781	6.35	783	7.15
30	125	" " " 2	784	6.00		
30	125	" " " 2	785	6.65		

Not Meter Test		Description		2 Pole		3 Pole	
Amps.	Volts	For Plug Fuses-One Fuse	Two Fuses	No.	Price	No.	Price
30	125			754	\$ 3.35		
30	125			752	3.65	753	\$ 3.95
30	250	For Cart.		757	4.55	758	4.55
60	250	"	"	762	15.95	763	16.80
100	250	"	"	716	24.75	717	25.60

"UNISAFIT"
(Universal Standardized Switches)

Number		Pole		Fuse		Neutral		Branches & Fusing		Price	
234	2	Single		1-2-Wire		2 Fuses				\$3.25	
235B	2	" "		2-2- "		" "				3.25	
236	2	" "		4-2- "		" "				4.30	
237	3	Two		1-3- "		" "				3.75	
237	3	" "		1-2- "		" "				3.75	
237	3	" "		2-2- "		" "				3.75	
238	3	" "		4-2- "		" "				4.85	
238	2	" "		2-2- "		" "				4.85	

METER SERVICE SWITCHES

Fuses & Blades Dead		Sealed Fuses		2 Pole		3 Pole	
Amps.	Volts	For Plug Fuses		No.	Price	No.	Price
30	125	For Plug Fuses		232	\$ 2.20	233	\$ 3.35
60	250	For Cart. Fuses		364	15.05	365	15.95

Fuses Alive		For Plug Fuses		330-1		333	
Amps.	Volts	For Cart. Fuses		No.	Price	No.	Price
30	250	For Cart. Fuses		130	2.65	133	3.35
60	250	"	"	360	8.45	361-3	8.90
100	250	"	"	310	15.05	313-4	15.95

SEALABLE MAIN FUSES

		Per Pound	PerHail Pound	Per 2 Ounce	Per 1 Ounce	Per Foot
Amazon	Friction.....	\$.65	\$.35	\$.10	\$.05	\$.01
Adhere	"65	.35	.10	.05	.01
Buildup	"70	.40	.10	.05	.01
Cataract	"55	.30	.10	.05	.01
Commodity	"60	.30	.10	.05	.01
Dutch Brand	"60	.30	.10	.05	.01
Everatick	"60	.30	.10	.05	.01
Laco	"85	.50	.15	.10	.02
G. E.	"85	.30	.10	.05	.01
Graybar Railway Signal	"90	.45	.15	.10	.02
Grimshaw	"	2.00	1.00	.25	.15	.03
Holdfast	"	1.00	.50	.15	.10	.02
Holdtite	"60	.30	.10	.05	.01
I X L	"75	.40	.10	.05	.01
Illinois	"85	.30	.10	.05	.01
Johns Manville Armature	"	1.75	.90	.30	.10	.02
" " Tomasco	"	1.00	.55	.15	.10	.02
" " White	"	1.35	.70	.20	.10	.02
" " No. 3 Now No. 5	"60	.30	.10	.05	.01
" " No. 6 " " 40	"55	.30	.10	.05	.01
Jaxon	"60	.30	.10	.05	.01
Leader	"70	.35	.10	.05	.01
Manson	"	1.30	.65	.20	.10	.02
Magnet	"75	.40	.10	.05	.01
O. K.	"60	.30	.10	.05	.01
P & B.	"	1.00	.50	.15	.10	.02
Pearless	"60	.30	.10	.05	.01
Service	"90	.45	.15	.10	.02
Stanpat	"55	.30	.10	.05	.01
Sticks	"30	.10	.05	.01	.00
Security	"55	.30	.10	.05	.01
Victor	"55	.30	.10	.05	.01
Vim Grav.	"	1.10	.60	.15	.10	.02

Amazon	Rubber	\$1.00	\$.50	\$.15	\$.10	\$.05
Alexall	"	1.20	.60	.15	.10	.05
Alpha	"	1.00	.50	.15	.10	.05
Brooklyn	"	.60	.30	.10	.05	.05
Cataract	"	.70	.35	.10	.05	.05
Dutch Brand	"	.70	.35	.10	.05	.05
Elec	"	.30	.30	.10	.05	.05
S. E.	"	.60	.30	.10	.05	.05
Graybar Victor	"	.60	.30	.10	.05	.05
Holdfast	"	1.00	.50	.15	.10	.05
Imperial	"	.60	.30	.10	.05	.05
Illinois	"	.60	.30	.10	.05	.05
Okonite	"	1.65	.85	.20	.10	.05
Para	"	.75	.40	.10	.05	.05
Pittsburgh	"	.60	.30	.10	.05	.05
Relio U.S.	"	.60	.30	.10	.05	.05
Security	"	.55	.30	.10	.05	.05
U. S. Rubber	"	.65	.35	.10	.05	.05
Twin Tape Rubber & Friction	"	.75	.40	.10	.05	.05
USCO Westinghouse	"	.90	.50	.15	.10	.05

VESTIBULE TYPE	
No. 74 Armored Cord Receiver Type.....	\$25. 00
No. 74A Swing Arm Receiver Type.....	37. 30
No. 74C Cordless Loud Speaker Type.....	30. 75
Above prices are for telephones complete but do not include for any call buttons.	
Add for buttons—Janitor Calling Buttons if fitted.....	\$ 9. 90
Add for Each Suite Calling Button.....	9. 90

Series 2800 to 2849 or 1900 to 49	Page 22 Bulletin No. 89 S. H. Couch Co.			
Number of Buttons, 0	1	2	3	4
Price Ea. Surface or Flush \$11.40	\$11.40	\$12.45	\$13.60	\$14.65

Braided Type "B"		Lead Covered Type "L"	
Number of Conductors	Price per Foot	Number	Price per Foot
8	\$.14	L-8	\$.18
12	.15½	L-12	.21
16	.18	L-16	.27
21	.22	L-21	.29
25	.24	L-25	.32
31	.27	L-31	.39
37	.30	L-37	.44

BUCKEYE TIME SWITCHES						Without Term. Box	With Term. Box
110 or 220V-Sgle or Dble Pole-10 A.							
..	20 ..	\$29.50	\$38.50
..	30 ..	23.00	31.00
..	40 ..	26.00	34.00
..	50 A.	30.00	38.00
Specials.....						26.00	30.00
Buckeye Combination Time Switch Remote Control Unit Complete							70.00
AC Capacity up to 125A.-110 or 220 Volt-2 & 3 Wire							125.00
DC							

	10 Amp.	20 Amp.	35 Amp.	50 Amp.
Type B Single or Double Pole.....	\$36.00	\$39.00	\$42.00	\$50.00
Type B Triple Pole.....	38.00	41.00	45.00
Type C & D Single or Double Pole..	39.00	42.00	47.00	52.00
Type C & D Triple Pole.....	41.00	45.00	49.00
Type G Apt. Hall Light Control D.P.	38.00	60.00

Indoor		All 250 Volt		Outdoor	
No. 1—\$47.00	30 Amp. Double Pole	No. 2—\$47.00		No. 2—\$47.00	
No. 1—59.00	50 " " "	No. 2—59.00		No. 2—59.00	
No. 1—59.00	50 " Triple " "	No. 2—59.00		No. 2—59.00	
No. 3—45.00	20 " Double " "	No. 4—45.00		No. 4—45.00	
No. 3—40.00	10 " " " "	No. 4—40.00		No. 4—40.00	
No. 3—45.00	10 " Triple " "	No. 4—45.00		No. 4—45.00	
Sunday Shut Off—Extra.....				\$5.00	
Attachment for Turning on earlier.....				\$5.00	

	10 Amp.	30 Amp.	30 Amp.	50 Amp.
Racine Type 1R-3R.....	\$19.50	\$23.00		
Reliance Type 10-20-30-50.....	28.00	30.00	\$32.00	\$36.00
Reliance Type 15 Triple Pole.....	00.00	32.00		

No.	Amps.	All Poles	15-230 Volt A. C. & D. C. Single Throw.	Description	Price
101	2	1		Clock operated, key wound	\$ 52.00
111	10	1		" " " 40 " " "	56.00
121	15	2		" " " 40 " " "	60.00
201	2	1		Self winding	74.00
211	10	1		" " " " " "	80.00
221	10	2		" " " " " "	85.00
321	25	2		Motor operated self winding clocks	105.00
341	40	2		" " " " " "	110.00
401	100	2		Motor operated Oil Break self winding clocks	190.00
431	200	2		" " " " " " " " "	230.00
461	300	2		" " " " " " " " "	280.00

Description	Indoor	Outdoor	Switchboard
Single Pole 15 Amp. 125 Volt	\$115-\$320.00	\$215-\$225.00	\$015-\$19.00
Double " " 250 V.	\$180-25.00	\$250-30.00
Single " " Movable Throw	\$115-25.00
Double " " Momentary Contact	\$180-25.00
Dbble. Pole 30 A. 250 V. Windless	\$730-60.00	\$830-65.00	\$080-58.00

Combination Type—With Clock and Contactor			
For AC Only	Description	For DC Only	
No. 78003	3 Pole	No. 7803	\$ 70.00
No. 78102	100 " 2 Pole	No. 78102	128.00

Amp. Volts Pole	Closed Face Numbers	Price	Open Face Numbers	Price	Open Flash Numbers	Price
10 110 Sgl.	T-810	\$20.00				
10 120 Sgl.						
10 110-MC	110-MC	28.00	115-MC	\$30.00	125-MC	\$34.00
10 220 Dbl.						
10 220 Dbl.	1101	20.00	1151	22.00	1251	26.00
20 110 Sgl.	110-ABCG	26.00	115-ABCG	28.00	125-ABCG	32.00
20 120 Dbl.	1102	23.00	1152	25.00	1252	29.00
20 220 Dbl.	1101 & G2	32.00	1151 & G2	34.00	1251 & G2	39.00
20 220 Tri.	11023	28.00	11523	30.00	12523	34.00
30 220 Dbl.	1103	25.00	1153	27.00	1253	31.00

BELL & TOY TRANSFORMERS									
Name		Style	Watt	Secondary Volts	50 to 133 Cycle		25 to 40 Cycle		
					No.	Price	No.	Price	
ED- WARDS	Steel Clad Bell	25	Single	86	\$ 1.30	86	\$ 1.50		
	"	25	Three	86T	1.60	86T	1.80		
	Porcelain Bell	25	Single	87	1.60	87	1.80		
	Out. Box Bell	25	"	86ER	1.60	86ER	1.80		
	Heavy Duty	50	8-16-24	88	4.30	88	4.80		
	"	75	"	89	6.40	89	7.10		
	"	100	"	90	7.50	90	8.30		
	Toy	50	3 to 18	870	3.60	870	4.30		
"	75	3 to 24	871	5.95	871	7.10			
"	100	2 to 30	872	8.95	872	10.70			

G. E.	Box Type	Heavy Duty	12	18	24
		50	8-10-24	2488	2490
		100	10-20-30	2333	2339
				2384	2340
HEMCO	Mold. Single	25	10 Volts	221	1.35
	Mold. 3 Circuit	25	6 to 18V.	221	1.35
	Steel Sgld. Cir.	25	10 Volts	226	1.25
	Steel 3 Circuit	25	6 to 18V.	226	1.35
	Box Type Sgld. Cir.	25	10 Volts	227	1.35
	Box Type 3 Cir.	25	6 to 18V.	226	1.5

Wizards	25	10 Volt	230-101	1.30	230-102	1.60		
Nasade	25	10 Volt	230-111	1.44	230-112	1.60		
Tri-Volt	25	6 to 18V.	230-121	1.44	230-122	1.60		
Jefferson			230-131	1.45				
Little Jolly Toy	50	5 1/4-13	535-101	3.95	535-102	5.00		
Midwest Toy	75	5 1/4-22	535-121	4.75	535-122	6.00		
Model 2 Toy	100	5 1/4-23	535-131	7.15	535-132	9.15		
Model 3 Toy		150	1-30					
Heavy Duty	A	50	231-101	9.00	231-102	7.00		
"	B	75	6 to 20	231-111	7.70	231-112	10.25	
"	"	C	125	6 to 24	231-121	10.25	231-122	12.95
"	E	250	6 to 24	231-141	20.80	231-142	25.60	

	Blue Bell	10	8 Volt	6166	1.25	...
	Tri-Volt	20	6 to 16	6163	1.45	6126 1.4
KILLARK	Box Type	10	8 Volt	7166	1.45	...
	Porcelain Case	10	8 Volt	4166	1.45	...

	Greynound	25	8 Volt	L-160	1.30	L-125	1.30
	Type A	25	8 Volt	A-160	1.40	A-125	1.30
	Tri-Volt	25	6-8-14 V.	A-130	1.55	A-1325	1.80
	Porcelain	25	8 Volt	AP-160	1.45	AP-125	1.80
	Box Type	25	8 Volt	OB-160	1.55	OB-125	1.80
	Toy Junior	50		50	3.30	50	4.00
	" Genesee	75		75	4.95	75	6.00
	" Senior	100		100	6.60	100	8.00
	" Niagara	150		150	8.80	150	10.60

	S-1 Sglt. Volt	15	S-1	1.30
	S-3 3 Volt	15	S-3	1.40
STAN-	D-1 Sglt. Volt	25	D-1	1.50
LEY	D-3 3 Volt	25	D-3	1.70
PATER-	HD-1 3 Volt	50	HD-1	5.25
SON	EHD 3	100	EHD-1	6.65
	3	200		18.00
	3	300		21.00

NOTE: For 220 Volt Transformers add 20% to above prices.

Wires

Wires

WIRES

RUBBER COVERED WIRES

Special Price on No. 14 S.B. Wire

Special Price on No. 14 S.S. wire				Per Foot
In less than Coil Lots.....				\$.01½
In Coil Lots.....				.01
Other Sizes		Price Per Foot		
		No. 18	No. 16	No. 14
Fixture Wire Light.....		\$.01	\$.01½	.....
" " Heavy.....		.01½	.01½	.....
Solid Single Braid.....		.01½	.01½	See Above
" Double.....		.01½	.01½	.02
Stranded Sgle. Braid.....		.01½	.01½	.02
" Dble.....		.....	.....	.02½
Duplex Single Braid.....		.....	.....	.04
" Double.....		.....	.....	.05
Other Sizes		Price Per Foot		
	No. 12	No. 10	No. 8	No. 6
Fixture Wire Light.....				
" " Heavy.....				
Solid Single Braid.....	\$.02	\$.03	.04	\$.07
" Double "	.02½	.03½	.05	.07½
Stranded Sgle. Braid.....	.02½	.03½	.05	.07
" Dble.....	.03	.04	.05½	.07½
Duplex Single Braid.....	.05	.06	.08½	.13
" Double "	.06	.07½	.09½	.13½

LARGER SIZES DOUBLE BRAID STRANDED

Size	Price Per Foot	Size	Price Per Foot
No. 8 D. B.....	\$.05½	No. 1 D. B.....	\$.10
No. 6 D. B.....	.07½	No. 0.....	.22½
No. 4 D. B.....	.10	No. 00.....	.27
No. 3 D. B.....	.12	No. 000.....	.33
No. 2 D. B.....	.13½	No. 0000.....	.40

CIRCULAR MILL CABLE

Size	Price Per Foot	Size	Price Per Foot
250,000 C. M.....	\$.48	600,000 C. M.....	\$1.00
300,000 C. M.....	.57	700,000 C. M.....	1.20
350,000 C. M.....	.65	750,000 C. M.....	1.34
400,000 C. M.....	.73	800,000 C. M.....	1.44
450,000 C. M.....	.83	900,000 C. M.....	1.60
500,000 C. M.....	.90	1,000,000 C. M.....	1.75
Additions to Code Wire for 25% (Intermediate Grade) and 30% Wire.			
For Intermediate or 25% Wire			
Sizes From No. 14 to No. 1.....	5%	For 30% Wire	10%
From No. 10 to 4 0.....	3%		6%
From 250,000 to 400,000 C.M.....	2%		5%
From 500,000 to 1,000,000 C.M.....	1½%		3%

WEATHERPROOF WIRE

Triple Braid

	No. 18	No. 16	No. 14	No. 12	No. 10	No. 8	No. 6
Per Pound Solid.....	\$.64	\$.60	\$.58	\$.56	\$.51	\$.48	\$.46
" Stranded.....	.....	.....	.....	.....	.59	.53	.50
Per Foot Solid.....	.01	.01½	.02	.02½	.03	.04	.....
" Stranded.....	.01½	.01½	.02½	.03	.03½	.04½	.....
Number Feet Per Pound.....	90	70	40	30	20	13	.....

EXTRAS—For slow burning W. P. Wire—Per Pound Extra..... \$.01
 For Twisted Pair W. P. Wire—Per Pound Extra..... .02
 For Double Braid W. P. Wire—Per Pound Extra..... .01
 For Medium Hard Drawn—Per Pound Extra..... .00½
 For Armored Cables See Page PL-9.

ANNUNCIATOR—TELEPHONE WIRE, ETC.

		Price		
		No. 18	No. 16	No. 14
Fixture Wire	Solid	Light ¼	Per Foot.....	\$.01
"	Heavy ¼	"	"	\$.01½
"	Stranded	Light ¼	"	.01½
"	Heavy ¼	"	"	.01½

		Price		
		No. 18	No. 16	No. 14
Single	Per Pound.....	.70	.68	\$.65
"	Per Foot.....	.00½	.00½	.01½
Twisted or Duplex	Per Pound.....	.75	.70	.68
"	Per Foot.....	.01	.01½	.03
Office & Damp Proof Wire				
Single	Per Pound.....	.90	.85	.80
"	Per Foot.....	.01	.01½	.02
Twisted or Duplex	Per Pound.....	.92	.88	.83
"	Per Foot.....	.02	.03	.04

		Price		
		No. 18	No. 16	No. 14
Single Stranded Black Per Foot.....		.03	.03½	\$.04
Single Stranded Colored Per Foot.....		.04	.04	.05
Single Glazed Cotton Per Foot.....		.04	.04	.05
Single Artificial Silk Per Foot.....		.04½	.05	.05½
Duplex Glazed Cotton Per Foot.....		.08	.09	.10
Duplex Artificial Silk Per Foot.....		.09	.10	.11
Twisted Pair Glazed Cotton Per Foot.....		.08	.09	.10
Twisted Pair Artificial Silk Per Foot.....		.09	.10	.11

Asbestos Range Wire

Description	No. 18	No. 16	No. 14	No. 12
Asbestos Range Wire or Switch Board Wire	Per Foot.....	\$.10	\$.12	.13

COVERED TELEPHONE WIRES

		Per Foot	
		No. 18	No. 16
No. 22—½	Twin Pair Plain Pothead Copper Wire.....	\$.03½	.....
No. 22—½	Twin Pair Flame Proof Copper Wire.....	.04	.....
No. 22—½ & S	Twin Pair West. Elect. Flameproof Jumper Wire (Enam.).....	.06	.....
No. 19—085	Twin Pair Flame Proof Copper Wire.....	.04	.....
No. 19—½	Twin Pair Dry Braid Interior Copper Wire (Olive).....	.03½	.....
No. 19—¾	3 Conductor Ditto.....	.05	.....
No. 18—¾	Twin Pair, Bridlewire, Saturated Braid.....	.03½	.....
No. 14—¾	Twin Pair Outside of Bridge Saturated Braid.....	.06	.....

Note—For Prices of Sgl. Conductor use ½ of above prices per foot.

GALVANIZED TELEPHONE WIRE

Size BWG	No. 4	No. 6	No. 8	No. 10	No. 12	No. 14
EBB Extra Best	Per Pound.....	\$.13	\$.13	\$.13	\$.14	\$.15
B. B. Best Best	"	.12	.12	.12	.13	.14
Steel	"	.11	.11	.11	.12	.13
Weight Per 1000 Feet.....	153	112	74	49	32	19
Weight Per Mile.....	811	500	390	258	170	99

WIRE, MAGNET

Price Per Pound

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Plain Enamel-ed Cotton	Enamel-ed Single Cotton	Enamel-ed Double Cotton
8	\$.83	\$.86	.....	.....	\$.83	\$.87	0.88
10	.84	.87	.....	.....	.84	.88	.92
12	.86	.89	.....	.....	.85	.89	.94
14	.88	.93	.....	.....	.86	.91	.95
16	.89	.95	\$1.30	\$1.40	.87	.95	1.10
18	.93	1.02	1.35	1.60	.91	.99	1.20
20	1.00	1.11	1.50	1.80	.93	1.08	1.23
22	1.10	1.17	1.60	1.90	.95	1.11	1.30
24	1.15	1.34	1.70	2.15	.98	1.21	1.40
26	1.26	1.50	1.80	2.25	1.04	1.36	1.70
28	1.42	1.73	1.95	2.70	1.13	1.56	2.00
30	1.00	1.99	2.70	3.60	1.21	2.05	2.25
32	2.08	2.84	3.40	5.00	1.52	2.36	3.05
34	2.66	2.98	4.40	6.70	1.71	2.90	4.20
36	3.40	4.50	5.00	8.40	2.10	4.50	5.15
38	5.50	7.80	8.60	14.00	.....	.....	.....
40	7.90	11.50	14.10	19.85	.....	.....	.....

NOTE: For odd sizes use half the increase of next larger size.

For ¼ lb. lots use one third of above prices.

For one ounce lots use one tenth of above prices.

Price Per 100 Feet

Size	Single Cotton	Double Cotton	Single Silk	Double Silk	Plain Enamel-ed Cotton	Enamel-ed Single Cotton	Enamel-ed Double Cotton
8	\$4.50	\$5.00	.....	.....	\$4.20	\$4.90	\$5.05
10	2.75	2.90	.....	.....	2.60	2.90	3.00
12	1.85	2.00	.....	.....	1.70	2.00	2.00
14	1.60	1.80	.....	.....	1.60	1.90	1.95
16	.92	.95	\$1.10	\$1.20	.90	.95	1.15
18	.60	.65	.70	.82	.50	.65	.82
20	.45	.60	.58	.65	.40	.50	.65
22	.34	.38	.42	.45	.30	.40	.45
24	.24	.28	.32	.37	.20	.30	.37
26	.15	.17	.20	.25	.13	.17	.20
28	.10	.15	.15	.20	.10	.15	.18
30	.10	.12	.12	.15	.10	.12	.15
32	.10	.12	.12	.14	.10	.12	.14
34	.10	.12	.12	.14	.10	.12	.14
36	.10	.12	.12	.14	.10	.12	.14
38	.10	.12	.12	.14	.10	.12	.14
40	.10	.12	.12	.14	.10	.12	.14

Note: Prices per 100 feet are higher than per pound rate to cover cost of measuring and should be used only for small lot sales.

LEAD & RUBBER COVERED WIRE AND CABLE

Size	Price Per Foot	Conductor	Size	Price Per Foot	Conductor
No. 14	\$.03	Solid	230,000 C. M. Cable	\$.78	Solid
No. 12	".06	Stranded	300,000 C. M. " "	.88	Stranded
No. 10	".08½	"	350,000 C. M. " "	.99	"
No. 8	".10	"	400,000 C. M. " "	1.08	"
No. 6	".17	"	500,000 C. M. " "	1.28	"
No. 4	".22	"	600,000 C. M. " "	1.58	"
No. 3	".25	"	700,000 C. M. " "	1.77	"
No. 2	".30	"	750,000 C. M. " "	1.89	"
No. 1	".36	"	800,000 C. M. " "	2.00	"
No. 1/0	".42	"	900,000 C. M. " "	2.20	"
No. 2/0	".47	"	1,000,000 C. M. " "	2.35	"
No. 3/0	".54	"			
No. 4/0	".63	"			

NOTE: Above prices are based on following quantities:

No. 16 to No. 8 Less than 100 ft. No. 6 and larger less than 50 ft.

Size	Price Per Foot	Duplex	Three (3) Conductor
No. 14	\$.08	Solid	\$.17
No. 12	".12	Stranded	.22
No. 10	".14½	"	.27
No. 8	".17½	"	.33
No. 6	".29	"	.45
No. 4	".43	"	.73
No. 2	".58	"	.90
No. 1	".72	"	1.38
No. 1/0	".83	"	1.40
No. 2/0	1.00	"	1.60
No. 3/0	1.18	"	1.83
No. 4/0	1.46	"	2.20

NOTE: Above prices are based on following quantities:

No. 16 to No. 8 Less than 100 ft.

No. 6 and larger less than 50 ft.

STEEL TAPED PARK CABLE

600 V. only

Size	1 Cond.	2 Cond.	3 Cond.
No. 12 Solid.....	\$.18	\$.20	\$.40
No. 10 " " ".....	.22	.29	.45
No. 8 " " ".....	.24	.34	.53
No. 6 Stranded.....	.33	.46	.63
No. 4 " " ".....	.40	.56	.87

NOTE: Above prices are based on quantities of 100 to 249 feet—Prices on smaller quantities are higher. Prices on Park Cable over 600 V. are higher.

Architects Demand Unfailing Performance

SPECIFICATIONS for modern buildings are written to assure permanence in construction. When naming wire—one item where unfailing performance is vital—leading architects and engineers regularly select A-A; long known for unvarying quality in Code, Red (Intermediate), or Thirty Percent.

A-A WIRE COMPANY

BRANCH OF GENERAL CABLE CORPORATION

Offices

BOSTON	CHICAGO	NEW YORK	DETROIT
SAN FRANCISCO	CINCINNATI	PHILADELPHIA	ST. LOUIS
WASHINGTON, D. C.	ATLANTA	BIRMINGHAM	CHARLOTTE



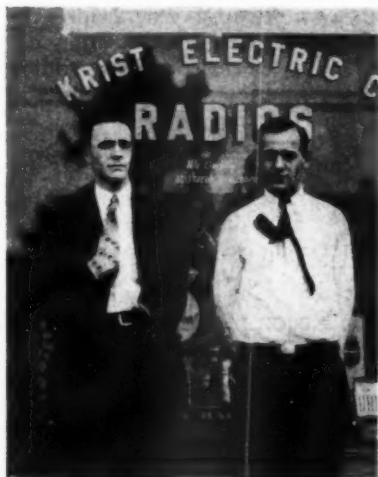
CHAMBER OF COMMERCE
Washington, D. C.
Wired with A-A Thirty Percent
Architect, Cass Gilbert
Contractor, L. K. Comstock & Co.

(Continued from page 38)

Members of the National Outdoor Christmas Lighting Committee who worked through the society in the preparation of the 1929 handbook are as follows: E. D. Stryker, chairman, National Lamp Works; A. W. Berresford, N.E.M.A.; J. F. O'Brien, Westinghouse Lamp Company, R. Bourke Corcoran, League Council; L. W. Davis, A.E.I.; F. C. Foster, Foster & Davies; C. E. Greenwood, N.E.L.A.; R. E. Harrington, Edison Lamp Works; C. L. Nicholson, Pass & Seymour, Inc.; L. Pollock, M. Propp Company, Inc.; E. Donald Tolles, N.E.W.A.; E. M. Beach, consultant; and O. C. Small, of the society, secretary of the committee.

The Christmas mailing piece is the first of a series of twelve monthly folders, the subsequent ones after Christmas dealing with the Red Seal Plan for adequate wiring.

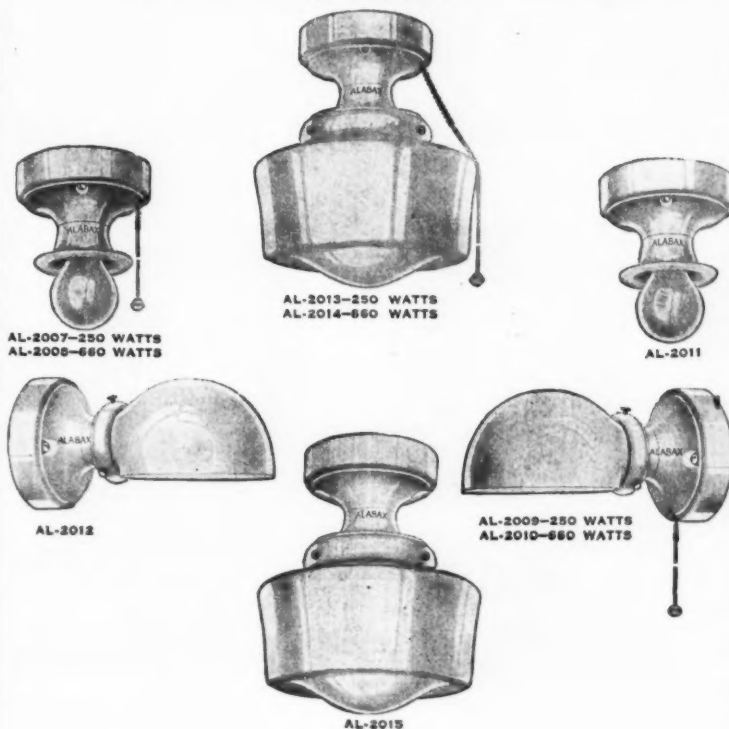
While this handbook will be for free distribution among leagues, central station commercial executives, wholesalers and dealers, a nominal charge of 25 cents a book will be made when quantities are desired.



BUILDS BUSINESS IN GARAGE WIRING:—The Krist Electric Co., Detroit, Mich., recently moved its business across the street, from 18440 to 18405 Van Dyke Avenue. This firm does all kinds of wiring, but has been unusually successful in signing up new garages. The partners, Geo. Wm. Foster (left), and Frank Krist, started only a few months ago and are well established at this time.

P & S ALABAX

Reg. U. S. Patent Office



These illustrations represent the latest group of fast moving ALABAX Lighting Units.

They are profitable.
There is a device for every purpose.
They are easily installed.
They have a deep recessed back.
They are attractive in design and finish.
Their pleasing contour meets with instant popularity.
They are made of pure P&S Porcelain.
They are durable.
Their installed cost is low.

Lamps and glassware are not supplied.

The P&S ALABAX Line is sold thru Jobbers. Ask your jobber for complete information, or write us direct.

PASS & SEYMOUR, INC.

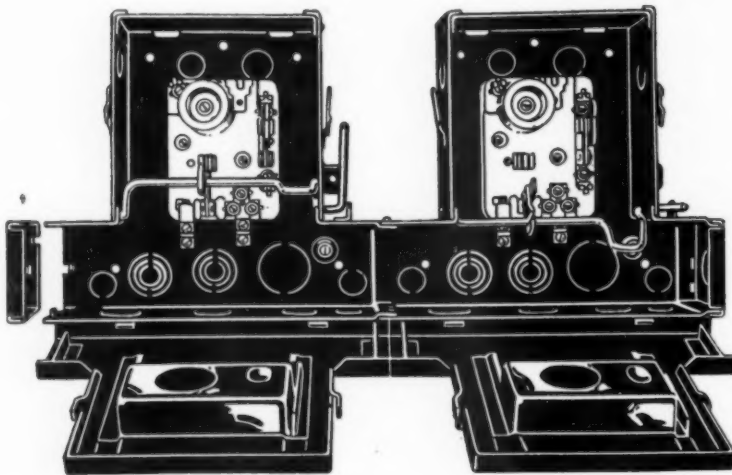
DIVISION H, SOLVAY STATION, SYRACUSE, N. Y.

WADSWORTH

Channel Banking Type Switches

Noted for:

—EASE OF WIRING AND INSTALLATION



NO CONDUIT, Lock Nuts, Nipples, or Bushings needed, and no separate troughs or lids between switches. Eliminating all disagreeable work and worry. If you have had experience with Wadsworth Channel Banking Type Switches we need no better testimonial than their merit in actual installation work.

If you have not used them—

ONE TRIAL

and your own practical experience will prove more about Wadsworth Channel Banking Type Switches than anything we can say.

The WADSWORTH ELECTRIC MFG CO. INC.
Covington, Kentucky

"There is a Wadsworth Switch for Every Installation"



NEW AND LARGE HOME FOR SPECIALIST:—The East Side Electric Co., Lansing, Mich., has prospered to the extent where larger and better quarters became necessary. So George A. Hill, owner, whose likeness is shown in the center, moved his business October 1, from the modest frame structure on the left to the substantial brick building on the right. In connection with his wiring business, Mr. Hill has built up quite a healthy sale on water pumping systems. He is Westinghouse agent for this class of outfits.

Utah Red Seal History

In the August issue of *ELECTRICAL CONTRACTING*, Page 40, the photograph of F. H. Eardley should have been captioned Ed. H. Eardley. Although F. H. Eardley did wire the first official Red Seal home after the adoption of the plan in Salt Lake City, as stated, it was not really the first Red Seal home there. C. Lamont Felt, electrical contractor, built his own home a year before the Electrical League of Utah obtained a license for the operation of Red Seal and at that time he applied to the S.F.D. for an application and wired his home according to the national minimum of Red Seal specifications and the league accordingly issued him the first certificate.

* * *

Recommends Wiring Adequacy Code

At the fourth annual convention of the Northwest Section, International Association of Electrical Inspectors, held in Vancouver, B. C., September 9 to 11, the report of the Code Clearinghouse Committee, recommending minimum wattage requirements for different-sized rooms and different occupancies with a view to making the National Electrical Code provide a minimum standard of adequacy was hailed as the most



Cut Out Waste

Use Appleton No-Thread Malleable Unilets . . .

Money is saved by the ease of installing Appleton No-Thread Malleable Unilets and by their long life.

There is no expensive threading time. Just loosen the nut—insert the conduit—tighten the nut. It is easy even in cramped quarters, in corners or with bent conduit.

Practically corrosion-proof because made of malleable iron and cadmium coated, these modern conduit fittings also show the greatest resistance to shock and vibration.

A type and size for every possible need is shown in our new bulletin. Send for your copy. Tear out the coupon now.

Appleton No-Thread Unilets are listed as Standard by Underwriters' Laboratories in 1/8-inch to 4-inch sizes, inclusive

SOLD THROUGH JOBBERS

APPLETON ELECTRIC COMPANY
1704 Wellington Ave., Chicago, U. S. A.

New York—150 Varick St.
San Francisco—655 Minna St.

Los Angeles—340 Azusa St.
Seattle—628 Railroad Ave.

APPLETON

No-Thread Malleable

UNILETS

Reg. U. S. Pat. Off.

The Original Threadless Conduit Fittings



APPLETON ELECTRIC COMPANY
1704 Wellington Avenue, Chicago

Gentlemen:

Please send us copy of your new bulletin 9-DA on Malleable No-Thread Unilets, together with prices.

Name

Address

City

State



You

**don't need to sharpen
your pencil on every bid**

Competitive bids! What a nightmare they make the contractor's life! And when pencils are sharpened and figuring gets close, how legitimate profits drop close to the vanishing point.

You don't need to depend upon that kind of a business. You can become a specialist. You can develop a non-competitive, highly profitable line of business in a new field, under territorial protection. It is amazing, the money that can be made installing sound systems. The business is everywhere. Theatres are but the starting point. Churches, hospitals, clubs haven't learned the possibilities yet. Hotels, restaurants, train and bus terminals are buying equipment already. Fifty fields unscratched!

And you are in a position to qualify for a license! As one of the oldest and most experienced organizations in the field of applied audio engineering we offer invaluable franchises to competent distributor-contractors. Write now for details, and the attractive booklet "Amplified Opportunities."



The New Ariel Theatre at Buffalo, N. Y., equipped with a complete sound system, including a Wright-DeCoster speakers and Powerizer 250 Rack and Panel. Installation by Buffalo Radio Engineering Laboratories after very careful survey by BREL and Radio Receptor engineers.

RADIO RECEPTOR Co., Inc.

106 Seventh Ave., New York City

Licensed by Radio Corporation of America and Associated Companies

POWERIZER

SOUND SYSTEMS

constructive piece of code criticism yet to be produced by a section of the association.

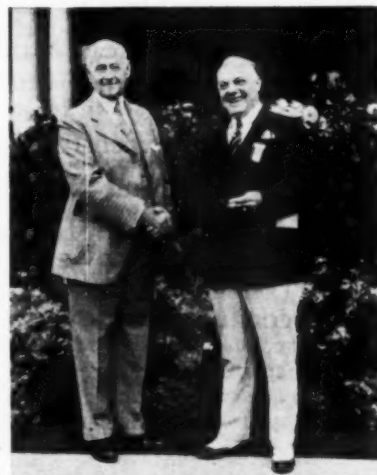
More than one hundred and fifty visitors and delegates attended the convention and the officers elected for the ensuing year are: C. H. Fletcher, chief electrical inspector, Vancouver, B. C., president; C. B. Gleason, chief electrical inspector, Tacoma, vice president; F. D. Webber, electrical engineer, Oregon Insurance Rating Bureau, Portland, secretary-treasurer.

A Convention of Picked Men

(Continued from page 12)

Joseph Mayer, Trades Relations Counsel, American Arbitration Association, New York, explained in some detail how to use commercial arbitration. This was received with much interest as arbitration is a part of the recommended standard clauses.

A paper illustrated with slides by Edwin Clark, president Clark & Mills Electric Co., Boston, on



From the Original Glad Hand Committee:—Sam Chase, chairman and Hugo Tollner, vice-chairman of the reception committee.

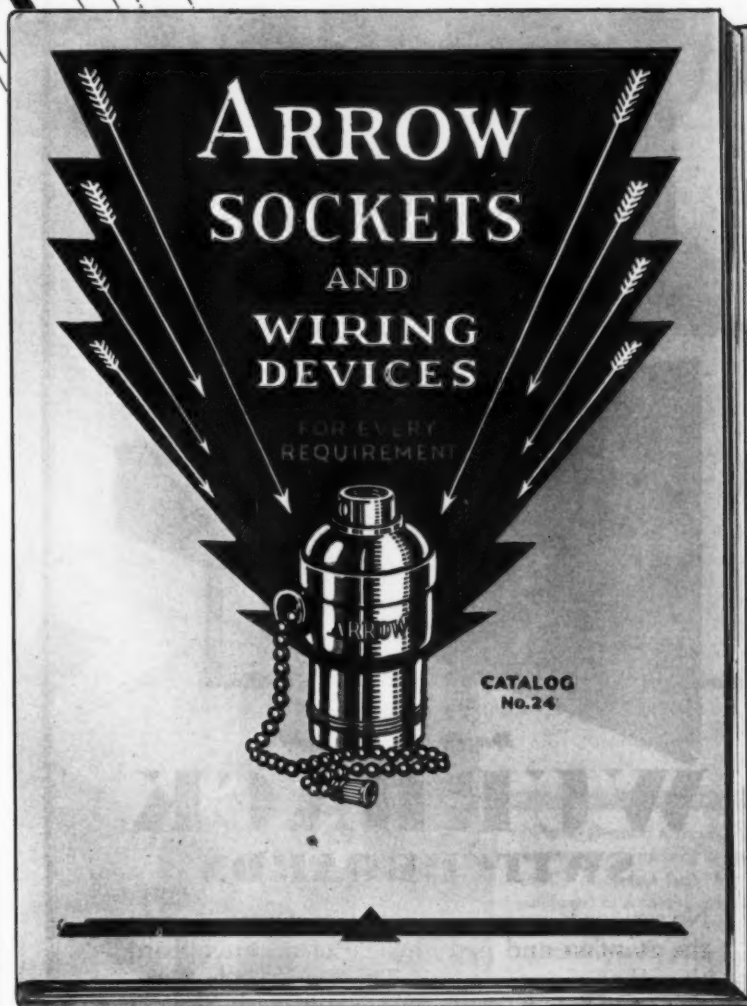
the subject of "Indirect Lighting" closed the last of the contractor-dealer sessions.

The general industry session occupied Thursday afternoon and was opened by the remarkable address of President Edgar of the Boston Edison Company. This will be found on page 16 of this issue.

An explanation of the work of the Department of Commerce in

New Catalog

NO 24



PLANNED in modern style for easy reference. Large type, clear tables, adequate illustrations. Presenting all new developments in wiring devices. Send Coupon for an early copy of this last word in catalog convenience and completeness. . .

ARROW ELECTRIC DIVISION

THE ARROW-HART & HEGEMAN ELECTRIC CO.
HARTFORD, CONN.


BY ALL MEANS send me new Catalog 24, listing all your latest developments in wiring devices.

Name

Street and No.

Town State

QUICK!



The
Chicago Daily
News

The Chicago
Daily News Selects

WURDACK

SWITCHBOARDS

No service is more exacting in its demands upon the stamina and performance of a switchboard than that of a newspaper. The heavy loads, varying demands and 24-hour duty, characteristic of newspaper plant service, demands switchboard equipment of unlimited stamina, ample capacity, correct design and sturdy, honest construction.

It is significant then, that the three largest evening newspapers in the Central West, the Kansas City Star, the St. Louis Post-Dispatch and the Chicago Daily News, whose recently completed plant is illustrated above, all selected Wurdack products for their current control equipment.

WM WURDACK
ELECTRIC MFG. CO.

4444 CLAYTON AVE., ST. LOUIS, MO.

analyzing distribution costs, both wholesale and retail, was made by Howard C. Dunn, chief of the domestic commerce division.

A progress report of the Through-the-Dealer Merchandising Plan of the Valley Electric Supply Company, Fresno, Cal., was prepared by H. H. Courtright, president of the company and presented by C. J. Geisbush of Electrical West. The details of the plan were first presented to the association at the St. Louis Convention in 1927. In the two years that have intervened the plan has exceeded expectations and it has been possible to greatly reduce the market development costs.

Harry C. White, Edison Lamp Works of the General Electric Company, gave a dramatic close to the convention with his address on "Light's Golden Jubilee."

* * *

Another Red Seal Record

With three months of the year still remaining, total figures for Red Seal applications in the United States give indication that the results of 1929 will come close to equalling the entire accomplishment of the first four years of the plan's operation, according to the Society for Electrical Development. September established a new high record for a single month with some 1900 applications reported. The previous high was set in June with 1,800 applications.



ACTIVE IN BETTER BUSINESS MOVEMENTS:—Hoste Bros., Detroit, Mich., contracting firm, carry on a fine wiring and merchandising business, also lend influence to community plans for progress. Lawrence Hoste, seen in front of the store, is treasurer of the Centerline Board of Commerce. The company's work is divided between industrial, commercial and residence wiring.

Noark

Meter Service Devices



"You said it!"

Why should any contractor try to estimate the labor and materials involved in hooking up branch circuits when the simplest kind of figuring will show him that he can do a better job at less expense with

Noark Branch Circuit Attachments"

These devices are standard for two or four branch circuits. A threaded coupling and lock nut permit quick attachment to standard meter service switches. Assembled with necessary wires (identified neutral) and so wired that they may be connected on either a two or three wire service.

COLT'S PATENT FIRE ARMS MFG. Co.
ELECTRICAL DIVISION

HARTFORD, CONNECTICUT, U. S. A. 

33-S-52

NEW YORK • BOSTON • PHILADELPHIA • CHICAGO • SAN FRANCISCO

Noark Branch Circuit Attachments consist of a specially designed fuse block enclosed in a metal cabinet with hinged cover.

A "dead front" plate conceals all wiring and prevents contact with live parts.



Catalog on Request

COMING! The most revolutionary advance in industrial switch design is soon to make its appearance. Watch for announcement by Colt



Helping you Sell MORE OUTLETS

What could be more help to you in getting the "more outlets" idea going over strong than good, low cost materials? Bridgeport leads the way with a duplex receptacle that combines everything you have wanted in a receptacle with the lowest price you've ever paid. That's helping the contractor make money. Shallow, rugged, simple, lots of room for wires in the box, big screws make tapping and splicing easy without soldering or tape. Get one into your hands now. See its good points for yourself. Your jobber will supply your regular needs. Send the coupon for a sample. **FREE!**

Bridgeport Electrical Mfg. Co. Bridgeport, Conn.

Send me a free sample of your new duplex receptacle.

Name.....
Address.....
City.....
State.....



NEW QUARTERS FOR STREET LIGHTING SPECIALISTS:—V. S. McKenny and Judge NePage, proprietors of NePage-McKenny Company, electrical contractors, Seattle, Wash., with offices at Portland, Ore., and San Francisco and Oakland, Calif. Taken in front of their new two-story building at 804 Sixth St., Seattle, where they manufacture switchboards and street-lighting equipment for their own installations.

Youngstown Studying New Code

A committee has been appointed by the Youngstown, Ohio, Electrical League to study the electrical section of the new building code, which will be presented to the Youngstown Council in the near future. In consideration of the importance of this work the league opened its fall meetings on October 17, with an address by Arthur L. Abbott, of the uniform ordinance department, the Society for Electrical Development, who spoke on "Codes and Ordinances."

Building Exits Code Approved

The second edition of Building Exits Code sponsored by the N.F.P.A. has been approved as an American Tentative Standard by the American Standards Association as of September 11, 1929. This edition supersedes the 1927 edition.

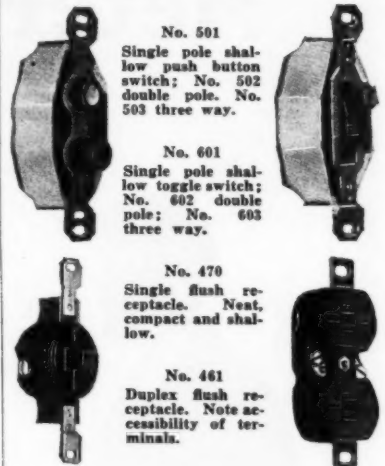
N.E.M.A. Elects Officers

Clarence L. Collens, president of the Reliance Electric and Engineering Company of Cleveland, Ohio, has been elected president of the National Electrical Manufacturers' Association, succeeding Huntington B. Crouse, Crouse-Hinds Company.

Five vice presidents were also elected for 1929-30 as follows:

insure easy wiring

Since 1892 manufacturers of a complete line of switch boards, panel boards and wiring devices that give electrical contractors the most for their money . . . Highest quality at reasonable price.



**METROPOLITAN
ELECTRIC MFG CO.**

METROPOLITAN products speed installation and enable you to make more profit on the job. Order your stock today from your jobber, or write us direct giving us his name.



Standard Plug Fuse—clear view mica top.



Standard N.E.C. fuses—250 v. and 600 v.



Let us estimate on your panel and switch board requirements.

Metropolitan Electric Mfg. Co.
East Ave. at 14th St.
Long Island City N. Y.



The NEW Benjamin Emblem Sign Reflector!

**For the Intensive Lighting
of Emblem and
Other Small Signs**



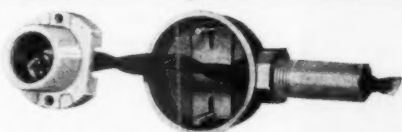
A new design in small sign reflectors which solves in a remarkable way the problem of the intensive lighting of small circular signs.

Easily installed in exactly the correct position with relation to the sign, so as to avoid spillage of light and glare over the edges of the sign.

More effective illumination, more durable equipment, easier wiring and lower cost of installation.



WRITE TODAY
FOR DESCRIPTIVE
BULLETIN!



Easily Wired and Installed

Conduit runs straight from bracket arm into reflector hood. Hood and socket locked to reflector by two holding screws. Less time for wiring and assembly of hood and socket.

Benjamin Electric Mfg. Co.

General Offices and Factory
DES PLAINES, (Chicago Suburb) ILLINOIS

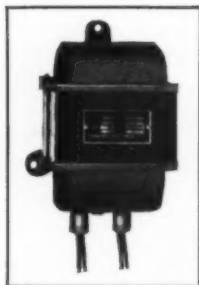
Divisional Offices and Warehouses
247 W. 17th Street New York 111 No. Canal Street Chicago 448 Bryant Street San Francisco



SORGEI **AIR-COOLED** **TRANSFORMERS**

With Conduit Connections

Booster Auto Transformers *for A. C. Network Systems*



**199 to 220 Volts
208 to 230 Volts**

Also Other Ratios

**Single Phase and 3-Phase
Sizes 1 to 500 KVA**

Being air-cooled, they can be installed easily in any convenient place inside of building, without enclosures or fire-proof vaults, and meet the requirements of the Underwriters.

Ask for Bulletin 1029-B

Sorgel Electric Co.
Clybourn and W. Water Sts.
Milwaukee, Wis.

S. L. Nicholson, Westinghouse Electric & Manufacturing Company, New York; C. H. Strawbridge, Goodman Manufacturing Company, Chicago; W. E. Sprackling, Anaconda Wire & Cable Company, New York; D. R. Bullen, General Electric Company, Schenectady, N. Y.; Louis B. F. Raycroft, Electric Storage Battery Company, Philadelphia.

* * *

Red Seal Going Strong in Vancouver

Activities of the Electrical Service League of British Columbia in the field of Red Seal work are developing rapidly, according to J. Hart, secretary-manager of the organization. There are now 2,127 Red Seal homes in Vancouver, this figure comprising 1,362 private houses, 30 suites in duplex blocks, and 735 suites in 46 apartment blocks.

* * *

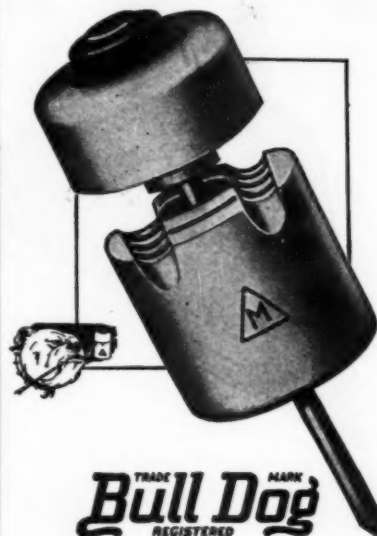
Building Inspectors Adopt Electrical Code

Unanimous adoption of Alhambra's (Cal.) electrical code was voted at the Building Inspector's Conference of the Pacific Coast at Portland, Ore., in September. This code was prepared by Arthur C. Veit, city electrical inspector.



SELLS WITH MOVING PICTURES OF WORK IN PROGRESS:—Harold A. Roseberry, of the Roseberry-Henry Electric Co., Grand Rapids, Mich., believes it is better to actually show the methods of his firm to architects, builders and other prospects. He has proved it by taking moving pictures of his men at work on difficult installations, and says one showing on the screen is worth a lot of sales talk.

"It has a grip like its namesake"



Split Knobs

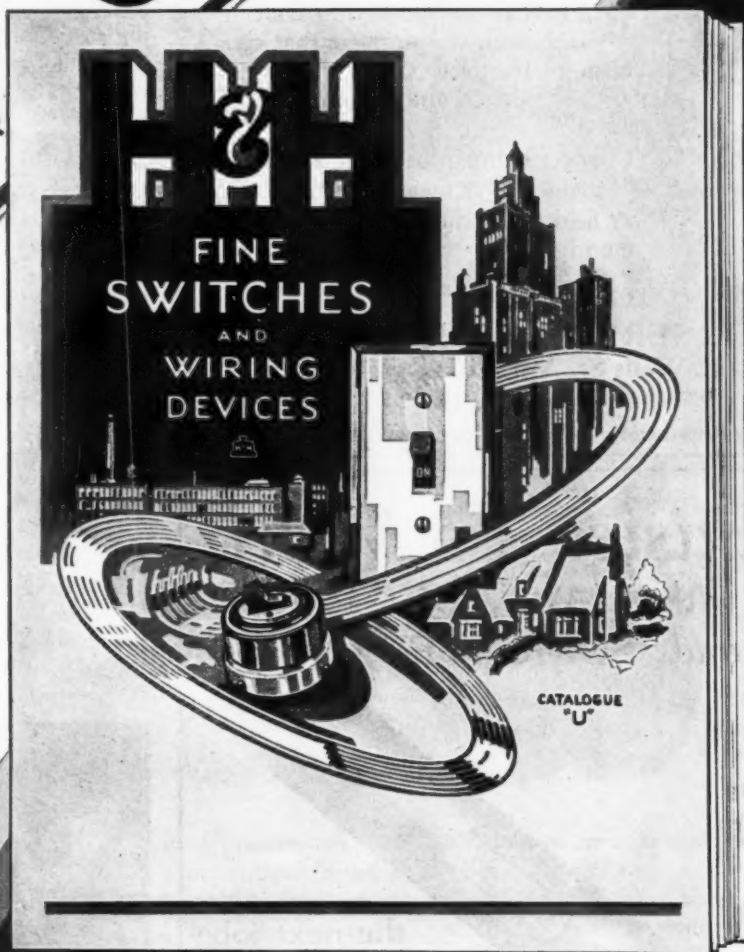
THESE are the safe, approved knobs for all types of residence wiring. They mean better jobs at no added cost. Bull Dog Split Knobs, together with Illinois Porcelain Tubes, Cleats and Solid Knobs form a complete line of standard porcelain.



Sold Through Wholesalers

Illinois Electric Porcelain Co.
Macomb, Illinois

H&H
Just Issued
Catalog "U"



*Mail
 today*

HART & HEGEMAN DIVISION
 ARROW-HART & HEGEMAN ELECTRIC CO
 Hartford Conn.

"BLUE BOOK of the Wiring Device Industry"
 —brings you all the newest devices with up-to-date listings of your old standbys in the H & H Line. Complete, readable, amply illustrated for quick finding of what you want. Fill out and send in the corner Coupon for this bookful of every-day wiring-helps.

HART & HEGEMAN DIVISION
 THE ARROW-HART & HEGEMAN ELECTRIC CO.
 HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890

Yes, I want your NEW Catalog "U"
 listing all your latest developments in
 switches and other wiring devices...

Name _____

Street and No. _____

Town _____ State _____



Trester Air Cooled Transformers

For
**LIGHTING
SYSTEMS and other
INDUSTRIAL USES**

REPLACE condemned balancing coils with transformers that conform to the New Code. They are safe, economical and efficient in operation.

Connect lighting load to 220, 440 or 550 volt power mains.

A field for business during the slack months.

Send for our
Bulletin 527

Representatives desired in principal cities and Industrial centers.

TRESTER SERVICE ELECTRIC CO.

49 E. Wells St., Milwaukee, Wis.

"Trester Service Since 1908"

It's Easier To Work with "GALVADUCT" and "LORICATED"



the next job
you have will
give you better re-
sults and will save time
if you use these conduits.

Garland Mfg. Co.
Pittsburgh, Pa.

St. Louis Plan of Certified Wiring

(Continued from page 15)

the certified plans, we will establish a means of protecting the interests of the owner.

If a wiring installation is properly planned, the owner pays a lower unit wiring cost for installation of each piece of his electrical equipment and a lower unit wiring cost is also the result when additional equipment is added to a properly planned original wiring installation. Wiring costs for additional equipment on a poorly planned original installation, in many cases, makes prohibitive the use of new electrical devices which are constantly coming on the market.

Careful consideration was given to the personnel of the bureau. Our first problem was to find a manager who would be thoroughly informed as to what the requirements of an adequate installation should be; who would have a personality that would gain the confidence of the architects and owners. We felt that the success of the bureau was dependent on the right man.

We were very fortunate in getting as our manager a man who has had experience in similar work for the lighting company. His duties are to call on the architects and engineers and fully ex-



**SPECIALIZES IN THEATER
SOUND WIRING:**—Mr. Wheelden of the Wheeler Electric Co., Bangor, Me., specializes in theatre sound wiring. This company has done all of the wiring for sound equipment installed in the theaters in and around Bangor.

YOU ARE INVITED TO BECOME A LIGHTING SPECIALIST



Among doctors, the "general practitioner" is almost always an overworked, underpaid and disappointed man. The medical "specialists" ride in Cadillacs. . . . Among electrical contractors, the man who does a "general" wiring business must continually whittle his pencil and bid low—the "specialists" are in position to smile at price. . . . We invite a few ambitious electrical contractors to become Lighting Specialists. We can tell you true but amazing stories of their success. But we do more than that: we actually show you *how* it's done—work *with* you—demonstrate by *actual orders* that specializing in commercial lighting takes you out of the ruck of price competition and wins you profits.

This is not a "blanket" invitation. We are manned and equipped to work this way with only a limited number of contractors. If you are interested, we suggest a prompt response.

RED SPOT

THE F. W. WAKEFIELD BRASS COMPANY

Vermillion, Ohio, U. S. A.

Manufacturers of the Well Known "Red Spot" Lighting Specialties for Stores, Office Buildings, Schools and Similar Installations.



Enlarging a knockout for a $\frac{3}{4}$ " conduit in an outlet box.

The Better Way To Enlarge Holes



This set of Greenlee Knockout Punches enlarges holes to fit $\frac{1}{2}$, $\frac{3}{4}$, 1 and $1\frac{1}{4}$ " conduit, quickly and easily. Operation requires only a common wrench. When larger holes are required, it calls for the Greenlee Knockout Cutter, which is just as efficient.

One and one-half minutes or less per hole. That is the record of the Greenlee Knockout Punch and the Greenlee Knockout Cutter. And the holes are left clean and round. Let us tell you all about these tools.



GREENLEE TOOL CO. Rockford, Illinois

Please send complete information on your Knockout Tools.

Firm.....

Name.....

Street.....

Address.....

Jobber or Dealer.....

11-29

plain the purposes of the bureau, to convince them that the customer's interests would be better served if they, the architects, would cooperate with the bureau to the extent that all plans would contain a complete, adequate, fully detailed layout that would not permit several interpretations.

It is possible for the bureau to insist only on such electrical requirements as are provided for by the National Electrical Code and the local inspection bureaus, and it is not our desire to force any owner to install any electrical work beyond these actual requirements. However, we do propose to consult with architects and owners regarding their respective jobs, suggesting the advantages of a complete electrical installation, so that the greatest protection and benefits may be obtained, and the greatest economy effected, by providing feeders of ample capacity for future extensions; to supply data on ceiling outlet spacing and convenience outlet locations, to suggest ample circuit capacity in order that proper illumination may be obtained to meet the varied requirements to which a building may be subjected; and also, to take care of the possibility of going to higher standards of illumination in the future; to inform the architects and owners of new developments in our industry so that they may incorporate them in their plans and so deliver to the public a modern electrical job.

Equal Competition

By establishing a uniform, certified plan for competition, the contractor will be greatly assisted by the assurance that competition on the job will be on an equal basis and the architect and owner assured that the plan will be adhered to.

When a plan is submitted to the bureau for approval, it is first checked in respect to Code requirements, and then carefully compared with modern standards. If the layout submitted is below this standard the bureau will furnish the architect or owner such information as may be needed to complete the plan in accordance with modern practices. After the bureau has completed this check, and are satisfied that the plans

Increased Winter Profits with Kit No. 35



Ohio Kit No. 35 \$25.00

Kit No. 35 means prompt servicing and prompt servicing means increased profits for you.

Wherever there is a single phase motor—Kit No. 35 can supply the brush—containing as it does brushes for over 300 different motors. You will find it especially handy in repairing meat choppers, shoe repair machines, coffee grinders, etc.

Every brush is code numbered and can be selected merely by consulting the chart. No delays and no confusion means not only increased profits, but a reputation for service as well.

Ask your jobber about this kit.

THE OHIO CARBON CO.

12508 Berea Rd., Cleveland, Ohio, U.S.A.

West of Rockies:

1066 Howard St., San Francisco, Calif.



LIGHT WITH STERLING SPELLS SUCCESS

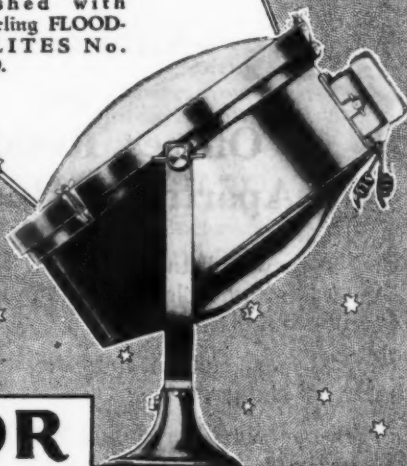
Sterling

Guaranteed Equipment
for
SUCCESSFUL LIGHTING

Sterling Equipment is fine in quality, and dependable in service. Those rare qualities that are always associated with the good name "Sterling" are visibly manifest in all Sterling products. That is why you are assured of **SUCCESSFUL LIGHTING** on every installation where Sterling equipment is used.



The World's largest office building is just one of the many striking examples of successful lighting accomplished with Sterling **FLOOD-O-LITES No. 5240.**



REFLECTOR & ILLUMINATING CO.

Manufacturers and Engineers

1401-1417 WEST JACKSON BLVD. CHICAGO, U.S.A.

REPRESENTATIVES IN ALL PRINCIPAL CITIES

These New Fittings Solve an Old Problem

HOW OFTEN have you faced the irritating job of "lining up" a row of rigidly suspended fixtures? And how much time and trouble were spent before you were really satisfied with the way they looked?

ADAPTi Self Aligning Fixture Suspension

Fittings solve the problem. They're easily wired. The fixtures ALWAYS hang vertically, and the swivel joint can't twist or break the wires. And if anyone does get careless with a ladder, the swivel joint lets the fixtures swing aside. In fact, like the rest of the Adapti Line, they are designed to save you money on your conduit jobs.



TYPE 8610-L
1/2" LEFT HAND
FITTING



TYPE 8621
3/4" "STRAIGHT
THROUGH" TYPE

Made Only in
1/2" and 3/4" Sizes

Write for Our New
Bulletin

The **ADAPTi** Co.

2996 East 72nd St., Cleveland, O.

NEW YORK CITY—A. Stone, 112 East 23rd Street

BOSTON, MASS.—E. R. Bryant, 241 "A" Street

PHILADELPHIA—The Craven Elec. Sales Co., 30 Bank St.



TYPE 8610-R
1/2" RIGHT HAND FITTING

and specifications meet with the requirements of the Code, and are properly detailed showing feeder and lamp sizes, the stamp of the bureau is placed on the prints and specifications.

A photostat copy of the plan is then made and a copy of the specifications secured. The plan copy is reduced to portfolio size for the convenience of filing and ease of handling by the inspector. This photostat gives the bureau an exact copy of the original print, and any changes subsequently made are readily noticed.

The labor organization was very enthusiastic about the plan of the bureau and readily agreed to co-operate. They realized the value of such a bureau whereby the standards of quality would be maintained. They incorporated in the last labor agreement, which is executed between the contractors and their organization, a clause, wherein it is stipulated that their members will not work on any job that is not approved or certified as being exactly what the architect had planned for the owner's job. Furthermore, it is agreed that they will not work on a job, even with an approved plan, unless the contractor is carrying out one hundred per cent the instructions of the certified plan and specifications.

The officers of the labor organization readily appreciated the fact



Annunciators for Offices, Residences, Apartment Houses, etc.

Our new bulletin No. 150 K just off the press shows the full line of Holtzer-Cabot Annunciators, push buttons and button plates.

This new bulletin gives full descriptions, dimensions, weights and prices.

Every contractor should have a copy of this bulletin showing a complete up-to-date line of Holtzer-Cabot quality productions.

The Holtzer-Cabot Electric Co.
Boston :: Chicago



SPECIALIZES LIGHTING INSTALLATIONS AND RADIO SERVICE:—The Harper Electric Shop, Detroit, Mich., can point to a large number of lighting jobs which show great care in designing for both utility and appearance. Radio sales and service are also prominent in their scheme. The truck used for a background is brand new. The men are C. Doane and Art Statt.

The Fisher Building, Detroit, Michigan, another large building where Youngstown Buckeye Conduit was used to protect the electrical wiring.

Architect
ALBERT KAHN, INC.

General Contractor
H. G. CHRISTMAN-BURKE CO.

Electrical Contractor
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Youngstown Buckeye Conduit furnished by

THE GRAYBAR ELECTRIC COMPANY



"EASE OF INSTALLATION" is Only a PART of the Story

ELECTRICAL contractors and electricians who have used Youngstown Buckeye Conduit are familiar with its "ease of installation" and the manner in which it speeds up wiring jobs. Experience has shown to them that this rigid steel conduit threads quickly and easily; that it bends readily to take any desired curves; that it will not split in bending; and that its durable electro galvanized or enamel coating does not chip or peel under the most severe handling or sharpest bends.

But that is only part of the story of Youngs-

town Buckeye Conduit. The other part tells of its permanence in the installation—how it outlasts the building themselves and how it affords unfailing protection to the electrical wiring for a lifetime; how Youngstown Buckeye Conduit invariably makes a good job better.

A Youngstown Sheet and Tube Company representative will be glad to tell you the complete story of Youngstown Buckeye Conduit—and show you how it will pay you to use it on your jobs.

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A REAL BOOSTER FOR HIS INDUSTRY:—W. S. Bicksler, a representative contractor of Wadsworth, Ohio, is not only a hustler doing a fine business, but believes in keeping posted and aiding forward movements. Of course he is an Electragist. This picture was taken during one of his trips to Akron.

that practically all jobs were being skinned more or less, by their employers. When a job is reduced in value to the owner from 10 per cent to 50 per cent, as I personally know has been done, it is very easy to realize that not only is there a reduced quantity of manufactured material purchased through the jobber, but the membership of the labor organization is cheated out of labor hours in proportion to the extent of the skinning practiced on the job.

This cooperation of the labor organization is of the greatest importance to the development of our bureau, for it makes it necessary that all plans and specifications shall be strictly adhered to.

The bureau has in its employ a chief inspector whose duties are to inspect and investigate any and all reports of cheating or skinning on any job. These reports are received through the cooperative efforts of the labor organization who police the jobs.

Any attempt of any contractor to skin a job will be reported to the labor organization who will in turn inform the inspector who will make an inspection and advise the contractor what will be required before work can be resumed on the job.

We are confident that the application of the principles of the

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efficiency, low cost of
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EVERY WIREMAN AND CONTRACTOR NEEDS IT

BY H. C. CUSHING, JR.

*Fellow of the American Institute of Electrical Engineers,
With the Cooperation of the Engineering Departments of the National Electric Light
Association and the Society for Electrical Development*



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THIRTY-FIVE YEARS."

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the latest and best method for lighting commercial, industrial and public building interiors, with all its tables and illustrations.

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Five Minutes Work for a New Outlet

The demand now-a-days in office buildings, public buildings, even in homes, is for Outlets and more Outlets located where most convenient. ELECTRIC BRANCH CIRCUIT DISTRIBUTION IN CONDUO-BASE IS THE ONLY ANSWER. The housewife may now change the location of her floor lamps, electric toaster, radio and what not, to just where she may want them. In office and public buildings, dictaphones, adding machines, buzzers, desk lamps and telephones can now be

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Every Electrical Appliance leads to a prospect for wiring in CONDUO-BASE. And every job needs anywhere from a few to hundreds, yes, in some cases thousands of Convenience Outlets. GRASP THIS OPPORTUNITY OF THE EVER WIDENING MARKET. SELL THE IDEA OF CONDUO-BASE TO YOUR PROSPECTS AND INCREASE YOUR ELECTRIC WIRING BUSINESS.

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bureau and the cooperation of contractors in following those principles will develop a most stabilizing influence in the industry.

By selling the owner and architect the idea of adequate installations, completely shown on the original plan, the irresponsible contractor and those who must get by, will be forced to change their methods of doing business, and will have to add overhead and profit to their cost if they expect to remain in business for they will be deprived of the extras on which they have been able to offset a low original bid.

They will also be deprived of that underhanded practice of cutting down the quality and quantity of the job as far as possible without detection.

According to Plans

The operation of the bureau will assure to the responsible contractor that fair competition will prevail and is also a guarantee that all work figured will be installed in accordance with the plans and specifications upon which his quotations were based. This will eliminate a great deal of dissatisfaction caused in the past by unscrupulous contractors.

If through the efforts of the Approval Bureau, the practice of reducing the standards of a job and shoddy workmanship can be checked, its cost of operation will be warranted.

Our bureau in St. Louis has been functioning just two and one-half months. But the officers of the labor union and the contractors who are behind the Approval Bureau feel that with the cooperation of the architect, engineer and owner for making a better layout of what is actually required on the job, by having an approved or certified plan of what the actual requirements are, and then leaving it to the wiremen on the job to police each job to see that the plans and specifications are actually followed, we certainly believe that conditions will rapidly improve. The progress since July 15 makes us feel certain that there are better days in store for the honest, fair dealing electrical contractor as well as the owner and the electrical industry generally.

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The first five floors of this fine building are occupied by one of the finest furniture stores in the South.

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The balance of the thirteen stories is occupied by the Fort Worth Club. "Diamond H" Remote Control Switches control the building lights thruout.

Engineers recognize the dependability of "Diamond H" Switches and include them in the wiring plans of buildings where many circuits are used and simple, effective control of lighting circuits is desired.

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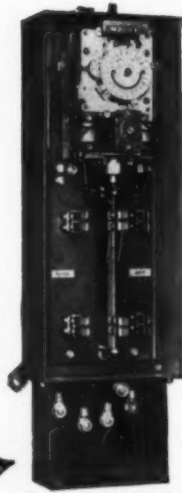
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A ROLL O' TAPE

Electrical flashes gathered among the Big Wire-and-Pipe Men by

Coit A. (Duke) Smith

Field Editor, ELECTRICAL CONTRACTING

THERE is apparently no limit to which a specialist will go to build his business. Harry Walker of Los Angeles, for instance, specializes in street lighting and when a job recently came up in which the lighting was tagged on to the paving contract he took the paving work. Now he expects to make money on both the paving and the street lighting.

ADD this to your collection. A certain contractor bid so many hundred dollars on a wiring job, which, although not the biggest in history, was very desirable in the matter of prestige and the chance for additional business. After our friend had put in his bid, he began to worry—felt that he must get that job at any cost. So he went to the builders and said: "You have my bid, but here's my new proposition. I will absolutely do the work \$25.00 lower than the lowest bidder." They gave him the job on that basis when the bids were opened, and then showed him that he was said lowest bidder.

I SAW a sign in a contractor's place that had lots of truth and poetry too. The legend was: "The man who loans tools is OUT—both tools and friends." But when I complimented the boss he smiled aloud. "Listen," said he, "if all the tools I have out would come when I call 'em, there would be a parade of steel up the alley that would take an hour to get here." Rules, systems and slogans are still dependent on the human element.

C. T. Seward, Jackson, Mich., contractor, tells of an incident in his electrical career that can be described as a wonderful hunch or good judgment. Someone offered him a swell job on a power project a few hundred miles up the Amazon River. It was a swell job because in those days \$250.00 per month was a princely salary. C. T., however, knowing something about jungles, wasn't having any, thank you. And the man who took the job was

Help!

A MEANS OF HELPING ELECTRICAL CONTRACTORS GET MORE RURAL BUSINESS

ELECTRICITY ON THE FARM



Note

IS THERE A PLACE FOR THE FARMER IN BUSINESS?

THERE is a very definite and important place in business for the progressive farmer just as there is for the merchant or the manufacturer who is alert to modern trend of the times. Foodstuffs is a highly essential product, one with an established demand. The farmer's problem, therefore, is one of production. He must beat down production costs if he would increase his profits, and to this end electricity is unquestionably the most valuable of allies.

When he employs this worthy servant, its success depends upon his selection of the proper system of wiring. Total or partial insulation and the absence of fire protection quite naturally play a safety foremost on the list for consideration. Next is Dependability, since service interruptions can rapidly consume profits. Then comes Economy, a factor in any business investment.

KNOB & TUBE Wiring, a system utilizing hard wire, not flexible for installation offers many advantages over other important requirements. **KNOB & TUBE** wiring is **DEPENDABLE**, and the most **ECONOMICAL**. It is **SAFE**, and its use is **SAFETY**. It is **DEPENDABLE**, and the most **ECONOMICAL**. It is **SAFE**, and its use is **SAFETY**. It is **DEPENDABLE**, and the most **ECONOMICAL**. It is **SAFE**, and its use is **SAFETY**.

For more facts, write to the nearest branch office of the following companies for particulars.

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Illinois Electric Porcelain Co. Knox Porcelain Corp.
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Porcelain Products, Inc.
Findlay, Ohio

THIS advertising campaign, featuring **KNOB & TUBE WIRING** is directed to nearly 200,000 farmers who are potential buyers of *Farm Home* and *Farm Building* wiring or extensions. . . . Here is a market offering a possible billion dollar business in wiring and fixtures. . . . **Alert** Electrical Contractors should list their names with each of the manufacturers sponsoring this campaign in order that active inquiries may have prompt attention. In addition to their firm name and address, contractors should name the counties in which they operate.

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ARE *built* TO

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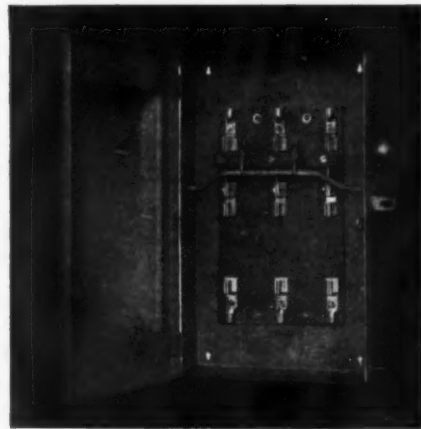
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K X R—the latest, across the line magnetic starter is compact, strong, simple and effective.

When Diamond E Externally operated switches and Motor Control are used together with Diamond E wiring gutter there will be Knockouts to match. It will not be necessary to ream or drill Knockouts.

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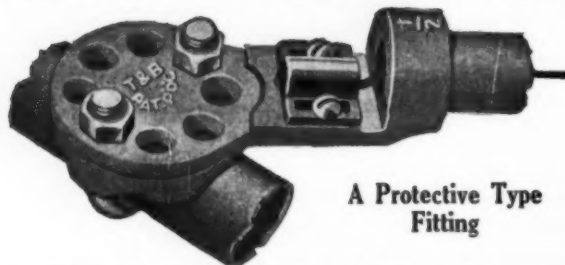
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ERIE, PA.



The New Code Ground Fitting



Approved by
Underwriters'
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T&B

3670 Line

A Protective Type
Fitting

The 1929 National Electrical Code and Inspection Authorities
Require Protective Ground Fittings.

1. It completely encloses ground wire and protects it from injury.
2. It bonds the ground conduit and conductor rigidly to the water pipe—providing a ground for both the conduit system and the system neutral conductor.
3. It is easy to install—combination solder and solderless wire clamp—adjustable U bolt—all nuts and screws on one side of fitting.
4. It takes $\frac{1}{2}$ " to 1" ground conduit and $\frac{1}{2}$ " to 2" water pipe.
5. TABOLITE plating protects it from corrosion—assuring 100% efficiency.

PRICES			
Cat. No.	Description	Stand. Pkg.	Stand. Pkg. Net Cost Each
3670	$\frac{1}{2}$ " Conduit to $\frac{1}{2}$ " to 1" Water Pipe	50	\$0.50
3671	$\frac{3}{4}$ " Conduit to $\frac{1}{2}$ " to 1" Water Pipe	20	.925
3672	1" Conduit to $\frac{1}{2}$ " to 1" Water Pipe	10	1.45
3680	$\frac{1}{2}$ " Conduit to $\frac{1}{4}$ " to 2" Water Pipe	50	.50
3681	$\frac{3}{4}$ " Conduit to $\frac{1}{4}$ " to 2" Water Pipe	20	.925
3682	1" Conduit to $\frac{1}{4}$ " to 2" Water Pipe	10	1.45

THE THOMAS & BETTS CO.

15 PARK PLACE, NEW YORK, N. Y.

shipped home in a casket two weeks after starting up the river—a victim of the dreaded "Yellow Jack."

SOMEONE told me that the Loomis Electric Co., Akron, Ohio, was the oldest electrical contracting firm in the city. Mere age, of course, isn't everything, and I was glad to find that this company is keeping step with the very latest in the business.

LOCATION is becoming an important factor in the electrical contracting business and much more care in picking a spot is exercised today than a few years ago. Not only for the sake of the store business, but for wiring customers' convenience, the place should be easily reached. One contractor advises studying the traffic on the street before renting or buying. His own survey showed 50 per cent more people used one side of a certain street, and the increase in sales was 30 per cent.

I'LL say this matter of stickiness of the braid is a big thing in wire-pulling. H. G. Binau, of the Electric Power Equipment Co., Columbus, O., gives a good example. They had a job where a large feeder had to be pulled through conduit which was buried in concrete right under a boiler. To make a long story short, every trick failed, including greasing. They finally had to chop the pipe out of the slab and run the cable underneath, where the temperature was more moderate.



BELIEVES IN BIGGER AND BETTER RESIDENCE WIRING:—While a large part of its business consists of commercial and industrial work, yet the Lakewood Electric Co., of Cleveland, O., is noted for putting in the very best of residence wiring jobs. Some of the largest and finest homes in Cleveland bear the seal of this firm. On the left is G. C. Davis, president and treasurer, and J. B. Quigley, secretary.

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Finished in crackle black, equipped with double knuckle to aim in any direction. Can be mounted anywhere very easily. Extra lenses in four colors.



EARLY DARKNESS SELLS

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WINDOW REFLECTORS

Retailers now must display by electric light hours earlier—offering you business, in fact. They want their goods to appear as in sunlight. They want eye-catching brilliance at lowest cost. You can give them both with this Bel-Sun-Lite show-window flood. Its chromium reflector closely imitates sunlight, and delivers twice the intensity of other reflectors from the same wattage.

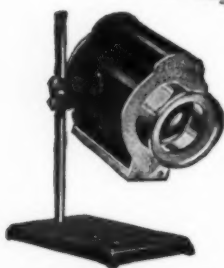
Offer to Bel-Sun-Lite the windows of your town's most progressive merchant, and you'll make money. The classified phone book in the cities below lists our representative. Or write us.

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Buffalo, N. Y.	Miami, Fla.	St. Louis, Mo.
Delaware, O.	Minneapolis, Minn.	San Antonio, Tex.
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Gary, Ind.	Omaha, Neb.	Seattle, Wash.
Houston, Tex.	Pittsburgh, Pa.	Tampa, Fla.
Indianapolis, Ind.	Philadelphia, Pa.	Tulsa, Okla.
Kansas City, Mo.	Richmond, Va.	Winnipeg, Man., Can.

Belson Manufacturing Co.

804 Sibley St.

Chicago, Ill.



This light changes focus from a pin point to a four-foot circle. Aim is fully adjustable. Color screens and cord with plug included.

Conduit As a Bare Neutral*

By Dr. M. G. LLOYD

Bureau of Standards, Washington, D. C.

THIS problem of the bare grounded neutral seems to be one step in a series which probably should be considered together. The three steps I refer to are as follows: (1) The grounding of non-current-carrying metal objects to the neutral wire of the electrical circuit. (2) The use of a bare neutral which involves accidental or unintentional grounding of the neutral wire at various points. (3) Discarding of the neutral wire in favor of permitting the return current to flow through well bonded rigid conduit which protects the hot conductor, or to flow over

*At the Detroit Convention of Western Section, International Association of Electrical Inspectors, August 26 to 29, a long talk was also given by Mr. Meier of Evansville, Ind., advocating the bare neutral. Mr. Meier followed his paper by a motion that the association go on record as recommending the inclusion of this type of wiring in the N. E. Code as one of the recognized types of wiring. This motion was immediately tabled by a unanimous vote. Dr. Lloyd's paper (abstracted above) followed and this was followed by a report from the American Water Works Association condemning this practice as unsafe. No suggestion was made to take the tabled motion from the table.

Fretz-Moon

FRETZ-MOON TUBE CO., Inc., Butler, Pa.

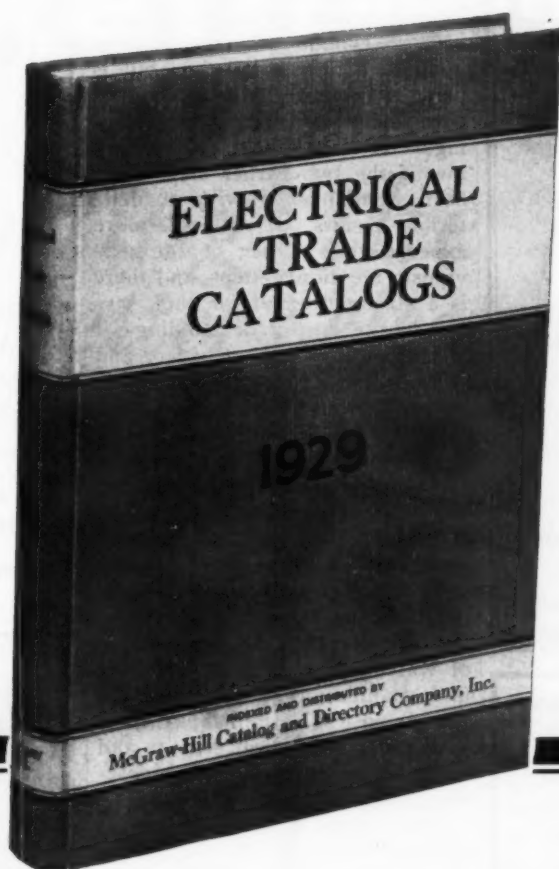
Specialization for years in the production of good conduit—the result, quality

RIGID CONDUIT



BUSINESS SHOWS FINE GROWTH:—From a small beginning about nine years ago, Paul H. Wilson, Wilson Electric Co., Rockford, Ill., has built up a real organization. He has an unusually large place, two stories and basement, does a good fixture business and in addition goes in heavily for motor repair. In wiring he is strong for industrial work.

The Catalog Place of the Electrical Trade



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The Green Book with the Orange Bands — whenever you need information on what or where to buy!

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(Reg. U. S. Pat. Office.)

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WIRES AND CABLES**

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PARKWAY CABLES

LEAD ENCASED

**RUBBER INSULATED
WIRES AND CABLES**

**UNIDUCT ARMORED
WIRES**

**FLEXIBLE METALLIC
CONDUIT**

**Detroit Insulated Wire Company
Detroit, Mich.**

Division of General Cable Corporation

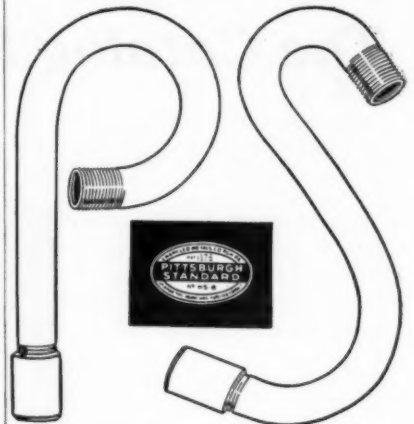
other stray paths through piping, metal frames of buildings, metal lath, and various other conducting materials with which contact may be made at various points of the building.

The entire discarding of the neutral copper conductor in favor of steel conduit has not yet been applied, to my knowledge, but is being advocated as a method of cheapening the wiring of buildings. It is a logical step to follow if the two earlier steps have been accomplished without deleterious results. It will save more expense than either of the previously mentioned steps, and there is a strong demand for such saving in the wiring of buildings if it can be done without hazard and without the loss of other desirable features.

Water Pipe Grounds

The advantage of grounding low-voltage electrical circuits at one point, as called for in the standard codes, is now so fully recognized as to require no argument. Such grounding of secondary circuits is usually permitted without objection by the owners of water-piping systems with the understanding that it is done for the purpose of establishing earth potential on electrical circuits and not to carry current. If the practice should become common of making such connections in a manner that would encourage stray currents to flow over water pipes, I fear that the cooperation of the owners of such facilities will be lost and objections will be raised to the methods of grounding which have now become general. As an indication that the fears of the owners of water facilities are not without basis, there is on record one case where so much current flowed over a small water pipe to which a ground connection had been made that the pipe was melted.

The system known as concentric wiring has now been under discussion in this country for a period of 13 years or more and there are still various opinions regarding the merit of such a system. It seems to me clear that if such a system is ever to come into vogue it cannot be installed in any better form than that of a



PITTSBURGH STANDARD GALVANIZED CONDUIT

FASTER fishing, easier fishing, with the inside enamel speed-coating. Outside zinc coating double the Underwriters' requirements. Two points of sure satisfaction when you install P. S. Ask your jobber.

**Enameled Metals Company
PITTSBURGH, PA.**

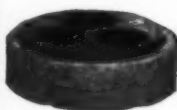
New Conduit Type Cable Support



A Simple Two Piece Cable Support for Vertical Runs.

Can furnish these in split type if wanted.

A Compact End Fitting



One that has a canvas bakelite insert made to take one to nine wires.

Bakelite Insulated Bushing



An insulated bushing made to prevent serious and disastrous grounds.

O. Z. CABLE SUPPORT CO., INC.
45 Bergen St. Brooklyn, N. Y.

Send us your latest bulletin with prices

Name

Address



BERTHOLD SWITCH and PANEL BOARDS for LIGHT and POWER

Berthold "Selectrolite" System of Lighting Control for theatres, auditoriums, lodgehalls, etc.

GUS BERTHOLD ELECTRIC CO.
555 W. MONROE ST. CHICAGO, ILL.

Steel
Cabinets



Stage
Equipment

Specification ^{FA}

Dotting the "i" — for better electrical jobs

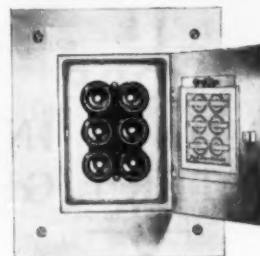
The only difference between a successful contractor and a near-successful one is the extra care he puts into his jobs and service.

Sometimes the difference is between the selling-on-price type and the quality-minded man. The latter installs ^{FA} Panelboards both for the service they give and for the fact they are an index of the "better job" he has done in the concealed wiring.

^{FA} Panelboards have established a reputation for quality, standardization and right-price first and now back this with the first guarantee known to

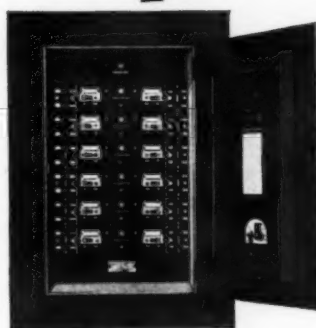
have been placed on panelboards. There is no maintenance, no come-back to an ^{FA} job—they last as long as the building in which they are installed. *That's* what the successful contractor sells.

Remember ^{FA} now has a new type of small home and store distribution center—the ^{FA} Fusbox. Get the new Bulletin on this *low-priced* unit and also if you haven't one now get the new 1929-30 General Catalog. Free upon request.



Type ^{FA} FBX FUSBOX

Frank
ELECTRIC



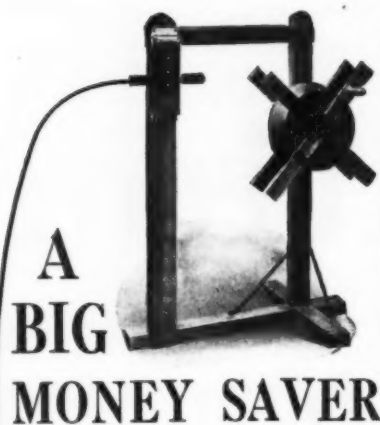
Adam
COMPANY

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Baltimore, Md.
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Chicago, Ill.
Cincinnati, Ohio

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Denver, Colo.
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Jacksonville, Fla.
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Eliminates triple handling—unwinding—measuring and rewinding wire, thus saving time and money. Manually operated—reels wire into neat coil, automatically counting and registering number of feet. Strongly built of heavy selected materials so as to last a lifetime.

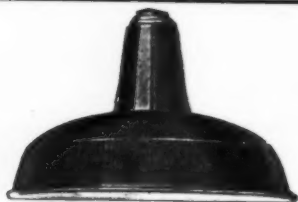
It Pays for Itself



Send for bulletin.
Write us or your jobber.

**Minneapolis Electric
and Construction Co.**

80 S. 12th St.
Minneapolis Minn.



**MORE
MONEY IN
BETTER LIGHT**

JACKSON REFLECTORS

Enable you to give your customers better satisfaction and still make a bigger profit. They are *RIGHT* in every particular and would cost you twice as much elsewhere.

Clip this Coupon Now

JACKSON ELECTRICAL CO.
910 W. Van Buren St. Chicago
Send me bulletin quoting new low prices on standard quality reflectors.

Name
Address
City..... State.....

rigid steel conduit having electrically good joints and carrying inside of it an insulated wire for the opposite side of the circuit. Such a wire can be replaced when necessary and there is no difficulty in making proper joints at outlet boxes and other points where necessary.

The one big question is whether the current is to be entirely kept under control or whether it is to be permitted to stray like a lost sheep far afield and to utilize on its return path parts of the structure which were not designed to carry it. Such journeys may be completed without harm to the structure or to the persons occupying it but they involve enough uncertainty as to what may happen to cause grave misgivings upon the part of many.

Perhaps the answer to the questions involved is to permit a few experimental installations at various places and under various conditions in order to develop with certainty and under competent supervision a more positive knowledge of what the results will be. Final action upon the question should be based upon a knowledge of actual facts as met with under field conditions.



HEADS AKRON CONTRACTORS:
—H. T. Uhl, of the Harvey Uhl Electric Co., Akron, O., is proud of the new set-up in his city and gives generously his time and efforts toward further improvements, especially since being elected president of the Electrical Contractors Association. His firm does a general wiring business, but concentrates on commercial and industrial work.

Rubber Insulated Wires and Cables

Insulating Tapes and Splicing
Compounds



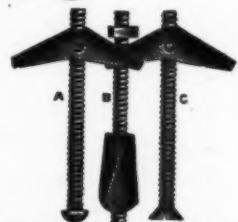
Raven
Core
Wires
Grimshaw
Tapes
Competition
Tapes

**NEW YORK
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WIRE CO.**

Main Office
114 Liberty Street,
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Factory:
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**the
Spring's
the
thing!**



Paine Spring Toggles work in any position in attaching your electrical fixtures to any hollow wall, ceiling or floor. Electrical contractors everywhere are using Paine Toggles because the exclusively patented spring feature makes installation so easy and speeds up the work—saving time and money. Order today from your jobber or write us direct giving us his name.

The Paine Company

2949 Carroll Ave., Chicago, Ill.
79 Barclay Street, New York City

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S P R I N G
T O G G L E S**



LET INLAND HELP YOU BUILD GLASSWARE SALES

While builders are building buildings, you can be building bigger and better sales—Illuminating Glassware Sales.

Inland's peculiar knowledge of modern illumination for large buildings has greatly assisted distributors and contractor dealers in securing recent contracts in this field.

The Chicago Civic Opera Building, Chicago Daily News Building, Woodlawn Hospital and Alamo National Bank Building shown in this page are several examples of recent Inland installations. Regardless of the type or size of the building, you will find suitable units in the Inland line. Write for catalog and further information to—

INLAND GLASS WORKS, INC.

6101 W. 65th Street

Chicago, Illinois

Inland

THE LARGEST IN THE MIDDLE WEST

Manufacturers News

A department for the announcement of activities of manufacturers that are of interest to contractors, such as changes in executive personnel, branch offices, new products, etc.

New Trumbull Branch Managers

Several new appointments have been made by the Trumbull Electric Mfg. Co. of Plainville, Conn., as follows:

H. L. Wheeler, who represented them in the Maryland-Washington, D. C., and North Carolina district, appointed as manager of their New York office to take the place of the late A. H. Bergendahl.

S. S. (Ben) Hallberg appointed branch manager of its Chicago office to replace M. L. Spaulding who resigned to become district manager of General Electric Supply Corp., Chicago. Mr. Hallberg for many years has been resident manager of the metropolitan Chicago district.

Wm. F. Maguire, for many years connected with the Wheeler Elevator Company, appointed as salesman in the metropolitan Chicago district.

* * *

Montgomery Goes with Bryant

The Bryant Electric Company, Bridgeport, Conn., has announced the appointment of F. S. Montgomery as advertising manager to succeed E. I. Pratt, who recently resigned to become associated with Curtis Flying Service, New York. Mr. Montgomery has an extensive background of both electrical and advertising experience. For six years he was advertising manager for the National Metal Molding Curtis Flying Service, New York, which he had been district manager in charge of the southern territory for the same company. Later, he was for three years manager of the electrical catalog department of Wynkoop Hallenbeck Crawford Company of New York

and for the past five years has been vice-president and treasurer of the Walter A. Allen Agency, Inc., Hartford, Conn.

* * *

New Prest-O-Lite Plant at Grand Rapids

A new Prest-O-Lite acetylene gas plant, located at 575 Kirkland St., Grand Rapids, Mich., was placed in operation by the Prest-O-Lite Company, Inc., of New York City on September 16.

This latest addition to the growing chain of Prest-O-Lite gas plants is under the superintendency of George Rose, Jr.

* * *

Parker Electrical to Succeed Double D

The Parker Electrical Mfg. Co. has been organized to succeed the Double D Electrical Mfg. Co., 3rd and Washington Sts., Oakland, Calif. Charles F. Parker, formerly manager of the Western Safety Mfg. Co. and Brown and Pengilly, San Francisco, Calif., is president of the new firm. The vice-president is P. DeBernardi, who was formerly in charge of the sheet metal department of the Western Safety Mfg. Co. and the Diamond Electrical Mfg. Co., San Francisco. The newly organized firm will manufacture safety switches, panelboards, switchboards, and other electrical equipment.

* * *

Hart Announces New Bulletins

The Hart Manufacturing Co., Hartford, Conn., announce the following bulletins:

Bulletin No. 10 covers all types of remote control switches for lighting circuits and other remote control service. It is illustrated with wiring and dimensional dia-

grams and many types of installations showing a variety of applications.

Bulletin No. 12 covers flush and surface switches and switch plates for all purposes.

Bulletin No. 13, time and temperature control for electric ranges and water heaters, includes data on thermostats and timers with wiring diagrams.

Bulletin No. 14, automatic door bolt control switch for hotel bedrooms and theatre dressing rooms. Schematic wiring diagrams of complete wiring circuit of room.

* * *

A. H. Bergendahl

A. H. Bergendahl, New York district manager of Trumbull Electric Mfg. Company, died on October 3. Mr. Bergendahl had been associated with the Trumbull company for eighteen years having represented them in Cleveland-Pittsburgh territory for many years and also recently in their New York territory. While on a business trip in Richmond he was stricken with appendicitis. He was 36 years of age.

* * *

H. C. Houck

Henry C. Houck, manager of the Merchandise Department of the General Electric Company, died at his home in Bridgeport, Conn., on October 15, after a long illness. Mr. Houck had been associated with the General Electric Co. for thirty years, entering their employ immediately after his graduation from the University of Pennsylvania in electrical engineering. He filled many important positions with the company at Schenectady, Cleveland and Cincinnati prior to his last position at Bridgeport.

Beating Competition with Brains

Competition is tough in the electrical contracting business these days; and every day it gets worse. Successful contractors have found they can beat fly-by-night competition best by using their brains, and by educating their responsible employees. You can help your head men to keep abreast of the times and save you money by sending each his own copy of **ELECTRICAL CONTRACTING**.

Here it is! A NEW HAMMER designed especially for ELECTRICIANS!



EXTRA LONG POLL!

High Grade Polished Carbon Steel

SEMI-STRAIGHT CLAW

Seasoned Hickory Handle!

The long POLL makes it easy to nail outlet boxes, fasten conduit or pipe straps.

The sturdy, semi-straight claw is handy for ripping flooring, and chipping joists.

Electricians say it is the handiest tool in their kit.

ORDER ONE TODAY—from your hardware dealer—or send direct.

**MAIL this
COUPON**

EVANSVILLE TOOL WORKS, INC.
EVANSVILLE, INDIANA

Gentlemen: I enclose my P. O. Money Order for \$2.00. Please send me the No. 77 ELECTRICIAN'S Hammer at once.

NAME _____

STREET _____

CITY-STATE _____

Write your Hardware Dealer's Name and Address on Coupon Margin!

Wallace S. Clark

Wallace S. Clark, for many years head of the wire and cable division of the General Electric Company, died suddenly at his home in Schenectady, N. Y., on October 11. Mr. Clark entered the electrical industry immediately after his graduation from Sheffield Scientific School, Yale University, by becoming affiliated with the Edison Electric Light Company, New York. When the company moved to Schenectady in February, 1887, Mr. Clark went to their Schenectady works and entered the wire and cable division. Mr. Clark also served on the war service committee of the insulated wire industry during the World War.

* * *

P. B. Munson

Paul Burt Munson, for four years manager of the Tacoma (Wash.) branch of the Westinghouse Electric & Manufacturing Company, died in that city on September 27. Mr. Munson was for eleven years connected with the Seattle office of the Westinghouse company.

* * *

Appoint Pacific Coast Distributors

Arrangements have been concluded by Pass & Seymour, Inc., Syracuse, N. Y., manufacturers of wiring devices and porcelain lighting fixtures, for distribution of their products on the Pacific Coast. In southern California they will be represented by H. B. Squires Co., through the organization's Los Angeles headquarters; George W. Rosekrans, Pass & Seymour's representative in San Francisco, will have charge of sales in northern California; J. M. Cavanaugh, manufacturers' agent of Portland, will handle the line in Oregon and Washington.

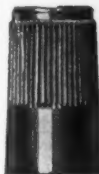
* * *

The Benjamin Electric Mfg. Company, Des Plaines, Ill., has just issued contractor-dealer discount sheet 105-C which supersedes sheet 104-C dated August 3, 1925. This is for central and eastern territories and went in effect August 1, 1929.

Trade Mark

SRK

A1 WIRE Connectors



THE BETTER KIND

A perfect joint every time plus simplicity and dependability.

A joint which is safer, stronger and better mechanically and electrically. SRK's embody everything necessary to make such joints. There is nothing more to ask for—and the job is done in a jiffy. 1 size for combinations of No. 14, No. 16 and No. 18, solid or stranded, up to 4 No. 14 and 2 No. 18, or equivalent.

MILLIONS IN USE

Approved by Underwriters Laboratories and Factory Mutual Laboratories

Samples upon request

Patent No. 1635293; Others Pending

Manufactured by

JIFFY WIRE CONNECTOR CO.

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General Sales Office

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Phone Canal 7535



IDEAL

"Universal" Wire Connectors

**Solderless
Tapeless**

Ideal Connectors enable contractors to underbid and make more profit.

No!

Loose Connections
Pierced Taped Joints
Smoked Ceilings
Danger of Fire

Yes!

Ideal Universal Wire Connectors Fit all common wiring and fixture joints and make a better electrical and mechanical joint.

Approved by Underwriters' and Factory Mutual Laboratories.

Fully Patented. Infringements of "screw-on" Connectors will be prosecuted.

MAIL COUPON TODAY

Ideal Commutator Dresser Co. 1129
1041 Park Ave., Sycamore, Ill.
☐ Please send me one trial carton of 100 "Standard Universal" Connectors at \$3.35.
☐ Please send a free sample connector.

Name _____
Address _____
City _____ State _____
My Jobber _____

New Electrical Products



A new line of improved Campbell boxes, receptacles and plugs has just been placed on the market by Steel City Electric Co., Pittsburgh, Pa. These fittings are for surface mounting (flush if desired) and can be furnished in 10 to 60 amp. capacity, 2-, 3- and 4-wire, with or without grounding features, having hinged lids that automatically close when the plug is removed.



The Frank Adam Electric Company, St. Louis, has announced the production of a compact panelboard in 4, 6 and 8 circuit types with tumbler switch control in branches for each pair of circuits. It is an assembly of unit molded sections made of cold flowed moisture-proof asbestos composition. The box is of formed type made from a single piece of code thickness galvanized steel. Knockouts are provided at top and bottom for rigid or flexible conduit or armored cable and are provided at sides for flexible non-metallic conduit.

White light from neon tubes has been announced by the Claude Laboratories, New York. It possesses brilliance with no glare or eye strain, it is stated, is comparatively a cold light and as such is adaptable to under water illumination and should withstand severe weather conditions. Additional white light developments covering fields other than advertising displays will be announced from time to time.



The Rattan Manufacturing Company, New Haven, Conn., has recently announced a new type of general utility outlet. Total height of outlet is $2\frac{1}{4}$ in.; diameter body $1\frac{1}{8}$ in. and diameter of plate $2\frac{1}{2}$ in., and is furnished in two ratings, 10 amp. 250 volts, and 15 amp., 125 volts. The connector snaps in and out of spring yoke and there is large head screw for ground wire when required.



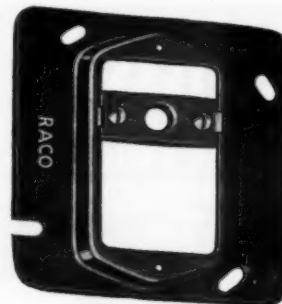
National Electric Products Corporation, Pittsburgh, has added to its ovalduct line, elbow No. 2136, which is made of drawn steel with smooth interior of maximum area. This new fitting takes ovalduct into $\frac{1}{2}$ in. conduit knockout or coupling and combines in one piece $\frac{1}{2}$ in. conduit box connector, 90 deg. elbow and ovalduct coupling. Fitting is also equipped with flexible ovalduct clamp and national $\frac{1}{2}$ in. bondnut to assure a good ground; no set screws.



The Adapti Co., 2996 E. 72nd St., Cleveland, O., is offering three new types of conduit fittings—a self-aligning pendant fitting, a service entrance fitting, and a switch fitting. The first is adapted for use with conduit stem pendants which must be suspended from sloping, rough or uneven ceilings and is made in a left-handed, right-handed and a "straight-through" type. The entrance fitting is designed so that the top may be lifted off by removing two locking screws. The switch fitting which is standard solid type is particularly adaptable to installation in confined spaces.



A new pit lighting unit to accommodate either 100 or 150-watt lamps and for built-in installations has been designed by the Benjamin Electric Mfg. Co., Des Plaines, Illinois. It has a heavy cast-iron body that sets back in a recess in the masonry and is impervious to water, gas or other corrosive elements. A heavy cast-iron body and cover frame securely houses the lamp and reflector and a strong brass wire guard protects the Pyrex heat-resisting glass cover from accidental breakage. The lighting reflector is of porcelain enameled steel of a special trough shape design.



A new line of "Raco" adjustable wall bracket covers for 4 in. outlet boxes has just been announced by the Roach-Appleton Mfg. Company, 3440 N. Kimball Ave., Chicago. This new cover is suitable for most installations in lath and plaster walls and is made in five different depths. They are equipped with two-piece heavy steel, galvanized, sliding adjustable bridge with stud drawn down in top piece and tapped to take $\frac{1}{8}$ in. nipple. The fitting operates the entire length of the opening in the switch cover allowing $2\frac{1}{2}$ in. adjustment for height of fixture after job is plastered, when it is set at desired height and clamped in place by tightening the two screws fastening the two plates together.

Concrete Inserts Save Time in Conduit Installation



Pound them in the form; the concrete holds them solid; hang the pipe below.

Send for Bulletin or Sample

Commonwealth Electric Co.
417 Broadway, St. Paul, Minn.

E-Z WIRE STRIPPER

A HANDY TOOL



This inexpensive tool strips wire of 10 to 20 gauge 20 times faster than usual methods.

A MONEY BACK GUARANTEE with every E-Z Wire Stripper. Send for yours now.

\$5⁰⁰ LIST

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Chicago, Ill.

General Electric Supply Corp.

**EDISON MAZDA LAMPS
ELECTRICAL AND
RADIO SUPPLIES**

**BALTIMORE RICHMOND
NORFOLK CHARLOTTE**

Distributors for General Electric Company, Radio Corporation of America and other large and reputable manufacturers.

RAWLPLUGS

Fibre Screw Anchors

HOLD SCREWS FAST

THE RAWLPLUG CO., INC.

**66 West Broadway,
New York City**

Branches in 25 Cities
Write for Bulletin B-201

National Appliance Co. (division of Reynolds Spring Co.), Jackson, Mich., has just published a new bulletin—"The Modern Way"—describing the use of National flood lights for the home.

* * *

Crouse-Hinds Company, Syracuse, N. Y., has just published catalog 2200, effective November 1, 1929, covering condulets, groundulets, plugs and receptacles, and supersedes all previous listings.

* * *

The Youngstown Sheet and Tube Company, Youngstown, Ohio, has just published a new bulletin entitled "Youngstown Buckeye Conduit, Illustrated," containing technical information and data of value to architects, electrical engineers, electrical contractors and the electrical industry. Charts are given to show the number of wires permitted in each conduit size.

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912, of Electrical Contracting, published monthly at Chicago, Ill., for October 1, 1929.

Before me, a notary public in and for the State and county aforesaid, personally appeared C. W. Forbrich, who, having been duly sworn according to law, deposes and says that he is the business manager of Electrical Contracting, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are: Publisher, Electrical Trade Publishing Co., 520 N. Michigan Ave., Chicago, Ill.; editor, E. B. Williams, 520 N. Michigan Ave., Chicago, Ill.; managing editor, S. B. Williams, 520 N. Michigan Ave., Chicago, Ill.; business manager, C. W. Forbrich, 520 N. Michigan Ave., Chicago, Ill.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member must be given.) Howard Ehrlich, 520 N. Michigan Ave., Chicago, Ill.; Edgar Kobak, Jackson Heights, N. Y.

3. That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and that this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

Sworn to and subscribed before me this 27th day of September, 1929.
(Seal) Elsie E. Stover.
(My commission expires December 10, 1929.)



**"Take it
from me,
Brother!"**

Writes a W. B. B.

"You don't know what you miss, if you fail to read the WIRE-MOLD BUSINESS BUILDER and Keep up with the latest News and Ideas for Building Up Your Own Business."

WIREMOLD

It costs you nothing to receive every issue of this extraordinary sales service prepared, edited and published exclusively for the purpose of helping the contractor MAKE MORE MONEY ON EVERY JOB and GET MORE JOBS TO MAKE MONEY ON. Each issue is cram-full of selling hints, news of Sales Campaign and VALUABLE WORKING BLUE PRINTS.

The
Wiremold Company
Hartford, Conn.

The Jiffy Line

Jiffy Tools Reduce Costs!

We guarantee your satisfaction. Order any tool illustrated on the margin, on approval. If YOU are not satisfied return the material at our expense.



Pipe Bender



Nipple Chuck



Box Cutter

A Bulletin describing the complete line in detail will be mailed upon request. Fill in the coupon below or send in your order ON APPROVAL.

ESTABLISHED 1915

Paul W. Koch & Company
25 So. Wells St., Chicago

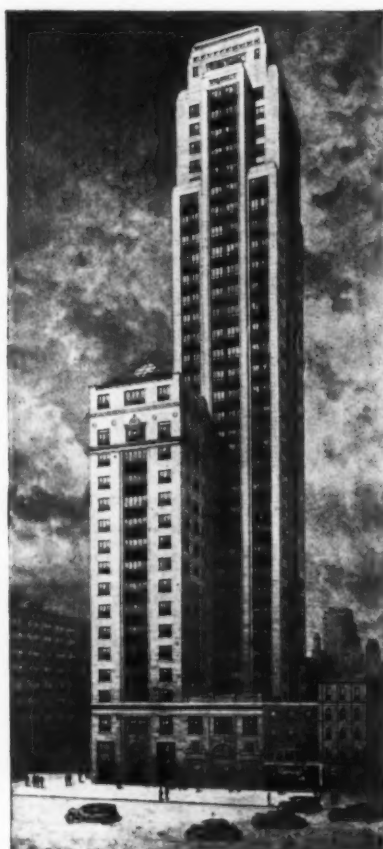
☐ Send information regarding free trial.
☐ Send the "Jiffy Line" Bulletin.

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Street.....

Address.....
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Tenants of the tallest office
building in the City of
Brotherly Love are assured
the highest type of electrical
control and convenience by
reason of

WEBER DEPENDABLE WIRING DEVICES

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80 Boylston St., Boston, Mass.

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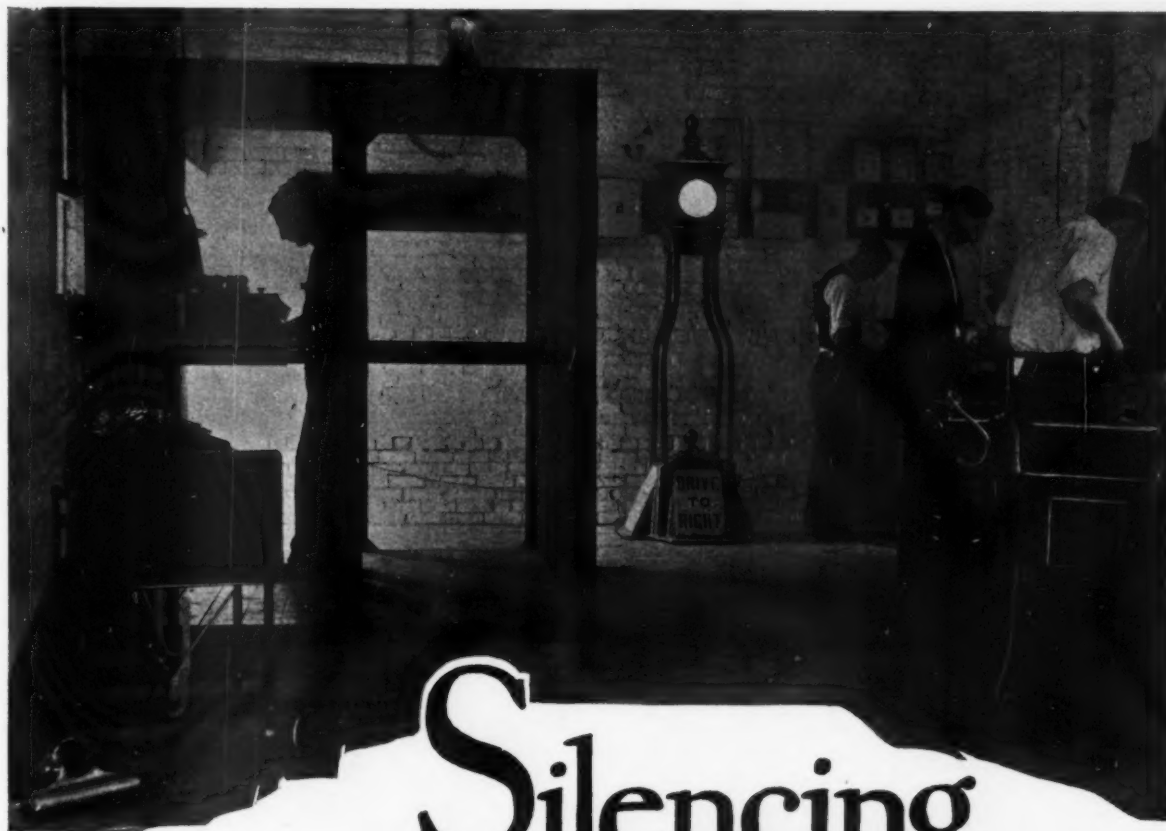
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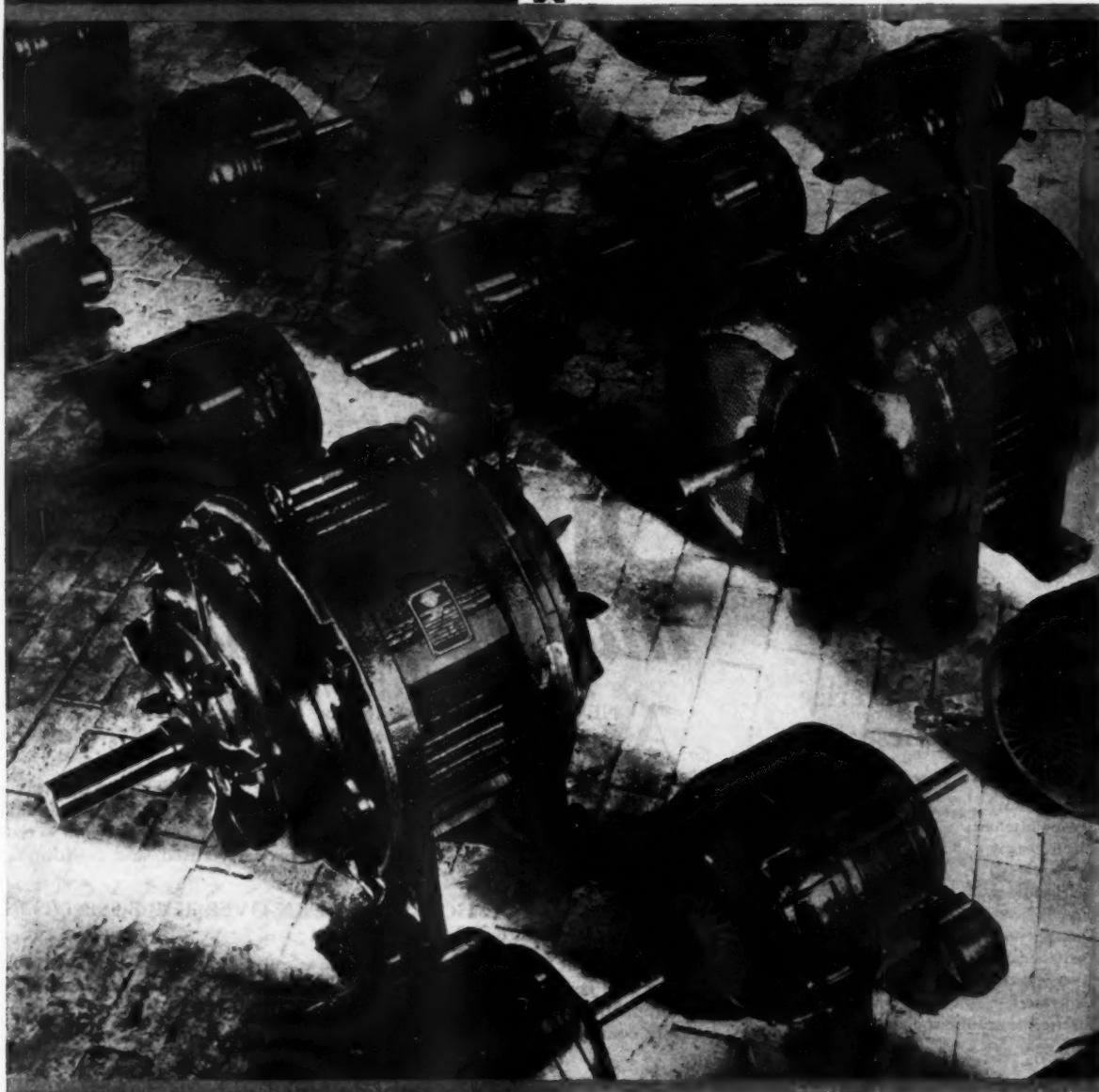
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